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ABSTRACT

This kit presents the Systematic Screening for Behavior Disorders (SSBD) as a tool to identify behavior disorders in elementary-aged students. The SSBD procedure is a three-stage, multiple-gating mass screening system. In the first stage the teacher systematically ranks all students according to either externalizing or internalizing behavioral profiles. In the second stage, the three highest ranking students from each of the two dimensions are evaluated by the teacher using two rating scales. In the third stage, any students identified by stage 2 criteria are further evaluated by another school professional using structured observation and recording procedures in both the classroom and playground settings. Students who exceed stage 3 cutoff scores are referred to child study teams. The kit contains a user's guide and administration manual, a technical manual reporting psychometric properties of the SSBD, an observer training manual, and multiple copies of the screening instruments. The user's guide and administration manual addresses the following topics: implementation and administration procedures; instrument score calculation procedures; decision-making criteria and procedures; recommended additional measures; school applications of the procedure; and recommendations and resources for designing interventions for identified students. (Contains more than 100 references.) (DB)

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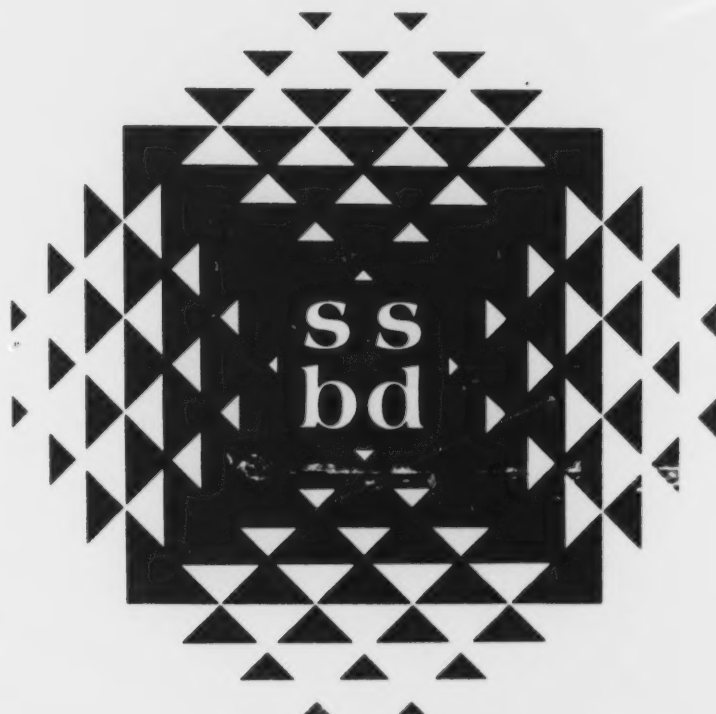
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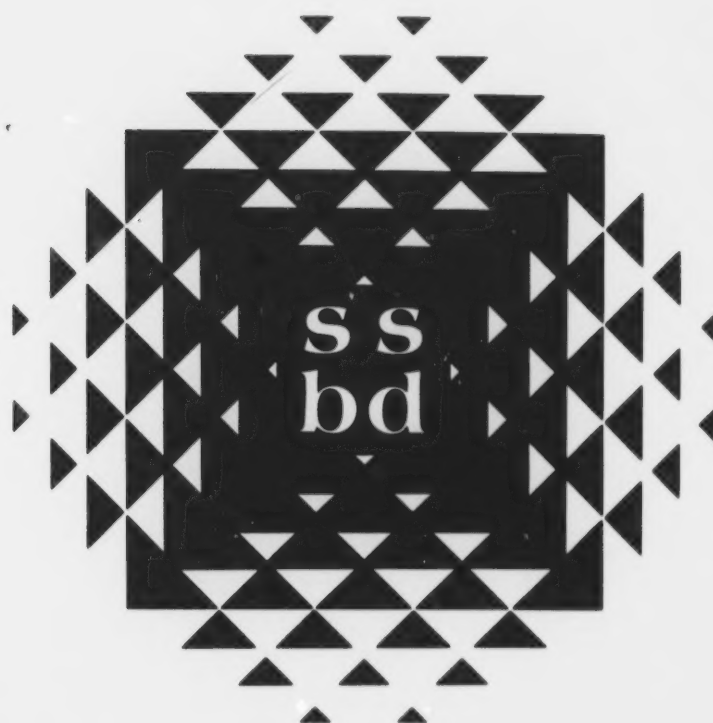
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EC 304287

Systematic Screening for Behavior Disorders

USERS GUIDE and ADMINISTRATION MANUAL



Systematic Screening for Behavior Disorders (SSBD)

User's Guide and Administration Manual

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Dedication

From the first author:

To Jan and Seth, whose support and encouragement make it all possible.

From the second author:

To Bonnie McQueen Severson, dedicated and skilled teacher, who provided perspective and support for the long journey from idea to reality.

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Introduction

Children who experience school-related behavior disorders and/or are at risk for school dropout are among the highest priority but least well served segments of the public school population. It is conservatively estimated, based upon recurring national surveys of school district practices, that approximately 750,000 school-age students have behavior disorders but currently receive no specialized school services whatever for their adjustment problems (Grosenick, 1980; Grosenick, George & George, 1991). Similarly, school dropout rates approach 40% of the school population in many areas of the country. The responses of the public school system to these problems tend to be reactive rather than proactive. That is, specific action is taken only after a child having serious behavioral adjustment problems is referred by a teacher, or a student's attendance becomes so erratic as to functionally define him or her as a school dropout.

We have the means to respond effectively to the problems of these two segments of the school population. However, school professionals need to know who these students are well before their problems become so severe that they leave school or experience serious adjustment problems that are detrimental to their self-esteem, peer relations and academic achievement. As long as we resort to a reactive, crisis intervention oriented approach to these problems, they will continue to plague the daily operation of the schooling process and result in the massive waste of human potential with all its attendant social problems. It is possible to prevent, in many instances, the development of such severe behavior disorders and the occurrence of school dropout. However, it cannot be done in the absence of proactive strategies that regularly screen and evaluate students as to their at-risk status on these two dimensions.

The regular classroom teacher is the primary link between a student who is in trouble and the necessary school-based evaluation and intervention services. However, teachers are not systematically trained or encouraged to identify and refer all those

children who fit the behavior disorders and at-risk designations; instead they tend to refer only those who severely disrupt the classroom environment or are atypical learners. Mass screening procedures are needed in the school setting, administered at regular intervals, that give each student an equal chance to be screened and identified for these two risk factors. Classroom teachers, with their extensive knowledge of the social, behavioral and academic characteristics of children in their classes, are in the best position to participate fully in this process at the initial screening level. However, their expertise and considerable knowledge are rarely effectively utilized in this context.

This *SSBD User's Guide and Administration Manual* describes implementation procedures, decision criteria and outcome recommendations for use in the systematic screening and identification of elementary-aged students at risk for school dropout and behavior disorders/problems of either an **externalizing** or **internalizing** nature.

Externalizing refers to behavior problems that are directed outwardly by the child towards the external social environment (i.e., away from self) and that involve behavioral excesses which are usually maladaptive and aversive to others. This dimension includes aggressive behavior, hyperactivity, conduct disorders, anti-social behavior patterns and non-compliance/teacher defiance.

Internalizing refers to a class of behavior problems that are directed inwardly, away from the social environment (i.e., self-directed), that often involve behavioral deficits and/or problems with self. Internalizing includes deficits such as being socially unskilled, excessively shy, timid or withdrawn, and conditions such as depression, school phobia, and social isolation and/or peer rejection. Such children often do not participate in peer-controlled activities and are unresponsive to social initiations by others.

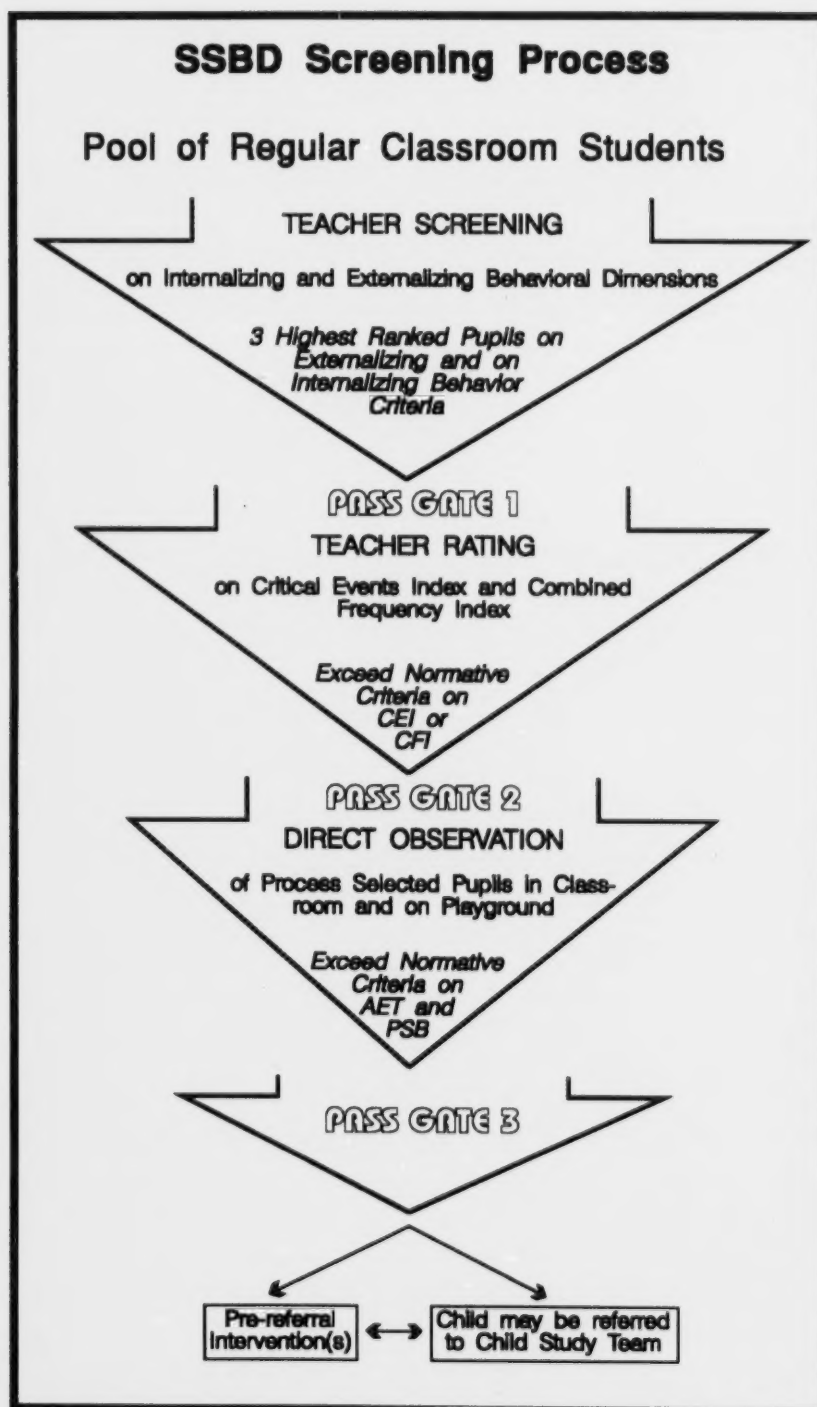
Most of the behavior disorders seen in the school setting can be grouped under one of these bipolar behavioral dimensions. As a rule, students with externalizing behavior patterns, disorders and problems create difficulties for themselves and others in school

that require intervention procedures designed to reduce their behavioral excesses and maladaptive behavior. In contrast, internalizing students require the application of intervention procedures designed to remediate skills deficits and to increase appropriate prosocial behavior.

The *Systematic Screening for Behavior Disorders* (SSBD) procedure is a three-stage, multiple-gating screening system for use in identifying at-risk students in the elementary-age range (grades 1-6). The first two screening stages rely upon teacher judgement and can be completed in approximately an hour to an hour and a half. Stage Three of the screening requires the completion of two 15-minute observations recorded in classroom and playground settings. Observations are conducted by someone other than the classroom teacher (e.g., school counselor, school psychologist, special educator or others). The application of the SSBD provides for mass screening of all students enrolled in a regular classroom. The system also gives each child an equal chance to be screened and identified for either externalizing or internalizing behavior disorders and problems. Figure 1, on the following page, graphically illustrates the three interrelated screening stages of the SSBD.

As illustrated, efficient and low-cost, mass screening procedures are implemented in SSBD screening Stage One to identify students who may be at risk for externalizing or internalizing behavior problems. This first screening gate involves teachers' systematic evaluation of students in their classes via rank ordering of them according to how closely their **characteristic** observed behavior patterns correspond to externalizing and internalizing behavioral profiles, respectively. The three highest ranked students from each rank-ordering dimension are then further assessed at the second screening gate using Stage Two teacher-rating instruments.

Figure 1
Multiple-Gating Assessment Procedure for
Identification of Behavior Disordered Students



The Stage Two SSBD measures include a 33-item **Critical Events Checklist** and a 23-item **Combined Frequency Index**, completed by the teacher, which together provide information on the specific content of the student's behavior pattern. Although these Stage Two measures are somewhat more expensive in terms of teacher time, they are conducted on only a small subset ($n=6$) of the total number of students screened in Stage One. Teachers rate each student's status on behavioral descriptors of externalizing and internalizing behavioral dimensions built into these instruments. Normative criteria and cutoff points on the Stage Two instruments are used to determine whether any of the rated students qualify for further assessments in SSBD screening Stage Three.

In Stage Three, a school professional other than the teacher (e.g., school psychologist, school counselor, resource teacher) observes only those students exceeding SSBD Stage Two normative cutoff points. This person uses structured observation and recording procedures to observe these students in classroom and playground settings. In the classroom, the amount of time the target student spends academically engaged is recorded on two separate occasions; on the playground, the quantity and quality of the student's social behavior is similarly observed and recorded. Students' classroom and playground behavior is then compared to age and sex appropriate normative levels as derived from the SSBD national standardization sample developed for SSBD Stage Three.

Students who exceed Stage Three cutoff points are referred, as a rule, to child study teams for further evaluation and assessments to determine whether they qualify as handicapped or are at risk for school dropout. Those who do not exceed these cutoff points are usually considered for a range of school-based or district-level services and programs (e.g., Chapter 1, prereferral interventions, referral to teacher assistance teams, and so forth).

Five years of research and development were invested by the authors and their colleagues in developing the SSBD system and the instruments comprising each screening stage. Extensive vali-

dation and psychometric studies have been conducted on the SSBD measures. The SSBD procedure has been field tested in six school district sites across the country. The complete SSBD research and development process and corresponding psychometric characteristics, validity, and reliability are described in detail in the *SSBD Technical Manual* (Sopris West, Inc. 1990).

The remainder of this manual is divided into sections on the following topics: SSBD implementation and administration procedures, instrument score calculation procedures, decision-making criteria and procedures, recommended additional measures, school applications of the SSBD, and recommendations and resources for designing interventions for students identified by the SSBD procedure.

Implementation and Administration Procedures

This section of the *User's Guide* provides instructions and guidelines for the administration of the SSBD Stage One, Two, and Three measures. This material should be studied carefully before implementing the SSBD screening system. It is recommended that the SSBD not be administered until teachers have had students in their classrooms for a **minimum of 30 days**. This is to ensure that the teacher has had an adequate opportunity to observe the child's behavior before including him/her in the screening process.

Rank Ordering of Students in Regular Classrooms

Stage One

Stage One rank ordering of students on externalizing and internalizing behavioral dimensions is the first component of the SSBD multistage-screening and identification process. Stage One is designed to give each student in the teacher's class an equal chance of being identified for either externalizing or internalizing behavior problems and relies completely upon teacher judgement of student behavior. Stage One has four primary objectives:

1. to provide standards, definitions, and criteria for teacher use in the screening-identification process;
2. to provide a structure for teachers to use in referring students who may be in need of either comprehensive evaluation(s) and/or exposure to intervention services;
3. to reduce the likelihood that a particular student in need of specialized services will not be referred; and
4. to give each student an equal chance of being referred for both disruptive acting-out behavior problems and problems associated with social isolation, withdrawal, and depression.

In Stage One, the teacher is asked to:

1. identify groups of students in his/her class whose **characteristic behavior patterns** most closely match the two behavioral profiles (internalizing and externalizing), and then
2. to rank order students in the two groups according to the degree or extent to which each one matches the behavioral profile in question (i.e., from the student who matches it most closely to the one who matches it least closely).

By following this procedure, those students who exhibit these maladaptive behavior patterns to the greatest degree are identified. Each student is then systematically screened for the behavior problems represented by externalizing and internalizing dimensions and provided an opportunity to be identified for either.

Administering Stage One Screening: Directions to the Teacher

The following steps comprise the SSBD Stage One rank-ordering process. Stage One screening should be completed by each classroom teacher and preferably on two occasions during the school year (e.g., October and February).

Step One Carefully study the definitions and examples of externalizing and internalizing behavior problems provided in the Stage One forms.

Externalizing refers to all behavior problems that are directed outwardly, by the student, toward the external social environment. Externalizing behavior problems usually involve behavioral excesses (i.e., too much behavior) and are considered inappropriate by teachers and other school personnel. Examples of externalizing problems include such things as

- displaying aggression toward objects or persons,
- arguing,
- forcing the submission of others,
- defying the teacher,
- being out of seat,
- not complying with teacher instructions or directives,

- having tantrums,
- being hyperactive,
- disturbing others,
- stealing,
- not following teacher- or school-imposed rules, and so forth.

Examples of more appropriate school behavior are cooperating, sharing, working on assigned tasks, making assistance needs known in an appropriate manner, listening to the teacher, interacting in an appropriate manner with peers, following directions, attending to task and complying with teacher requests.

Internalizing refers to all behavior problems that are directed inwardly (i.e., away from the external social environment) and that represent problems with self. Internalizing behavior problems are often self-imposed and frequently involve behavioral deficits and patterns of social avoidance. Examples of internalizing behavior problems include

- having low or restricted activity levels,
- not talking with other children,
- being shy,
- timid and/or unassertive,
- avoiding or withdrawing from social situations,
- preferring to play or spend time alone,
- acting in a fearful manner,
- not participating in games and activities,
- being unresponsive to social initiations by others, and
- not standing up for one's self.

Examples of social behavior that demonstrate social involvement with peers and that facilitate normal or expected social development are initiating social interactions with peers, having conversations with or playing with others, having normal rates or levels of social contact with peers, displaying positive social behavior toward others, participating in games and activities, resolving peer conflicts in an appropriate manner and joining in with others.

The dimensions of externalizing and internalizing account for nearly all of the behavior problems that underlie child adjustment problems in school and for which students are commonly referred to school psychological services.

Step Two Select an externalizing and an internalizing student group from the pupils in your class.

For both externalizing and internalizing dimensions, review the characteristic behavior patterns of ALL students in your class and select the ten (10) students who most closely match **each** of the behavior profiles.

- It is very important that you select the externalizing and internalizing groups in your class and rank order them according to how they actually behave (i.e., what they say and do) and not according to either the presumed intent of their behavior or what you infer they may be thinking and feeling. The definitions and examples of externalizing and internalizing dimensions provided previously must be the sole criterion used to form the externalizing and internalizing groups (n=10 each).
- In field testing the SSBD, teachers have commented from time to time that they did not have ten (10) students who matched the externalizing or internalizing behavioral descriptions. This may be a difficult judgement to make, but it is an extremely important one. It is essential that ten (10) students each be identified for the two dimensions in order to assure that all students are adequately screened for these two behavior patterns. Thus, even though it may be difficult to decide which list a particular student belongs on, it is most important to make this initial decision.
- Students in the Externalizing and Internalizing lists must be mutually exclusive. **That is, a single student can appear on only one of the lists—not both!** Occasionally a student will exhibit behavioral characteristics associated with both externalizing and internalizing behavior patterns. When this occurs, simply rank the student on the

dimension (i.e., externalizing or internalizing) which seems to best characterize her/his overall behavior pattern.

Some teachers will be frustrated that they cannot place the same child on both the externalizing and internalizing lists. There is some empirical evidence that a very small number of children exhibit both externalizing and internalizing behavioral characteristics. If this were allowed, however, the SSBD screening process would not be nearly as accurate and would yield ambiguous results in some instances. If a teacher is very concerned about a student's behavior problems, then that student is likely to be ranked high on either the externalizing or internalizing behavioral dimension and be eligible for further screening.

Step Three Rank order the students on each of your externalizing and internalizing lists using the SSBD rank ordering form for Stage One (see accompanying SSBD forms and instruments packet).

The ten (10) students in your class who manifest externalizing and internalizing behavior problems should be rank ordered according to the degree or extent their behavior pattern matches the definition of each of the respective dimensions of behavior problems (e.g., externalizing versus internalizing).

- The student in your class assigned the rank of number one is the individual who, in your judgement, **most** exemplifies the externalizing behavioral profile described above. The student who receives the rank of 10 is the one who **least** exemplifies this behavioral profile. Ranking forms and examples are provided for your use in selecting student groups and rank ordering these students on both the externalizing and internalizing dimensions.
- Rank order students based on your observations and interactions with them during the **past month or longer**. Students you have known less than 1 month should not be included in either the externalizing or internalizing groups (i.e., do not rank order them).

Figure 2 (Example)

Externalizing Behavior Disorders Ranking Form

Teacher _____ Class _____ Date _____

Rank Ordering on Externalizing Dimension

Externalizing refers to all behavior problems that are directed outwardly, by the child, toward the external social environment. Externalizing behavior problems usually involve behavioral excesses, (i.e., too much behavior) and are considered inappropriate by teachers and other school personnel. **Non-examples** of externalizing behavior problems would include all forms of adaptive child behavior that are considered appropriate to the school setting.

Examples include:

- displaying aggression toward objects or persons,
- arguing,
- forcing the submission of others,
- defying the teacher,
- being out of seat,
- not complying with teacher instructions or directives,
- having tantrums,
- being hyperactive,
- disturbing others,
- stealing, and
- not following teacher or school imposed rules.

Non-Examples include:

- cooperating, sharing,
- working on assigned tasks,
- making assistance needs known in an appropriate manner,
- listening to the teacher,
- interacting in an appropriate manner with peers,
- following directions,
- attending to task, and
- complying with teacher requests.

COLUMN ONE List Externalizers

Student Name	
Most Exemplifying Externalizing Behavior	Billy Smith
	Jane Zimmer
	Shirley Rowe
	Tom Lehner
	Britt Kriston
	Rebecca Brown
	John Townsend
	Ray Beck
	Stuart James
	Brent Davis

COLUMN TWO Rank Order Externalizers

Student Name	
Least ↑ Externalizing ↑ Most	1 Britt Kriston
	2 Shirley Rowe
	3 Stuart James
	4 Billy Smith
	5 Ray Beck
	6 Brent Davis
	7 Tom Lehner
	8 Rebecca Brown
	9 Jane Zimmer
	10 John Townsend

Instructions:

1. Review the definition of externalizing behavior and then review a list of all students in your class.
2. In Column One, enter the names of the ten students who characteristic behavior patterns most closely match the externalizing behavioral definition.
3. In Column Two, rank order the students listed in Column One according to the degree or extent to which each exhibits externalizing behavior to the greatest degree is ranked first and so on until all 10 students are rank ordered.

Summary

To complete Stage One rank ordering, each teacher should

- first, review a list of all students in his/her class using a class roster form or a copy of his/her class list.
- Second, write in the names of the 10 students whose characteristic behavior patterns most closely match the externalizing behavioral description in the first column of the form. The order or magnitude of externalizing is not important at this point. The goal is to simply form the externalizing group.
- Third, use the second column to rank order students listed in column one according to the degree or extent to which each exhibits externalizing behavior problems. It is important to remember that the students in column two of Figure 2 and those in column one are identical. The difference is that those in column one are **not** rank ordered, while those in column two have been rank ordered according to the degree or extent to which they exhibit the externalizing behavioral dimension.

Stage Two

Screening - Identification Procedures

The purpose of this second stage of screening is to describe and measure specific behavior problems and behavioral deficits exhibited by the three highest ranked students identified in Stage One for externalizing and the three highest ranked for internalizing, respectively. Stage Two is designed to achieve three goals:

- to describe the specific content of the behavior problems experienced in school by the three highest ranked externalizing and internalizing students,
- to provide a basis for making normative comparisons on the *Critical Events Checklist* and *Combined Frequency Indices* of adaptive and maladaptive behavior for determining whether the student is to be further assessed in Stage Three, and
- to provide important information for determining eligibility for special services and for designing effective interventions.

The teacher is asked to complete two rating tasks in Stage Two. The first is a **Critical Events Checklist** that assesses whether a student has exhibited any of 33 externalizing and internalizing behavior problems in the past 6 months. The checklist indicates, in the teacher's judgement, whether the critical event has occurred or not. The second is a **Combined Frequency Index**. This measure assesses how often the student exhibits specific adaptive and maladaptive behaviors. Each rating task is completed only on the three highest ranked externalizing and internalizing students in the class ($n=6$).

Administering Stage Two Screening: Directions to the Teacher

Critical Events Checklist for Externalizing and Internalizing Behavior

In this rating task, all six students from Stage One (i.e., the three highest Externalizing and the three highest Internalizing) are assessed on a checklist of 33 maladaptive behavioral indicators. Separate forms are provided for students with internalizing and externalizing students identified in Stage One (see *SSBD Instruments and Forms Packet*).

To complete the Critical Events Checklist, follow the steps listed below:

1. Locate and examine the Critical Events Checklist.
2. For **each of the six pupils identified in Stage One** (i.e., the three highest ranked externalizers and the three highest ranked internalizers), read each critical event or behavioral description and place a check in the appropriate column beside any behavior that has been exhibited **one or more times during the current school year**. The optimal time frame for the Critical Events Index is the past 6 months.
3. After completing your ratings, total the number of checks for each student in the space provided at the bottom of each column.
4. Specify any serious behavior of concern not appearing on this list using items 34 and 35.

Important Note: If you have observed any of the items in the Critical Events Checklist occurring for **any student in your class** during the current school year, please make a note of the critical event(s) observed and the student's name(s). The occurrence of any of the critical events listed on this index should be cause for concern. Stage Two of the SSBD can then be completed on that child to further determine the appropriateness of a referral for psychological evaluation.

It is **not** necessary for a teacher to have directly observed an item providing she/he is aware that the behavior has occurred. For example, if one knows the child has been accused and possibly even prosecuted for stealing, that item should be checked on the Critical Events Scale, even if it has not been observed directly. Of course, it is very important to assure that the information is reliable.

Combined Frequency Index for Adaptive and Maladaptive Behavior

In this rating task, all six students from Stage One (i.e., the three highest Externalizers and the three highest Internalizers) are rated on the same frequency index. The frequency index consists of 23 items (12 adaptive, 11 maladaptive) which measure the student's **teacher-related** and **peer-to-peer** behavioral adjustment(s). Forms are provided separately for each student on the adaptive and maladaptive behavioral indices (see *SSBD Instruments and Forms Packet*). Complete one of these forms for each of the six students identified in screening Stage One.

In completing the Combined Frequency Index, please read each item carefully and separately evaluate the frequency with which the students engage in the behavior described by the item. The numbers 1 through 5 are a continuous scale and are used to indicate your estimate of the frequency with which each item occurs for a given student.

- **Circling 1** indicates that the behavior **does not occur** and is **not characteristic** of the student.
- **Circling 3** indicates that the behavior **occurs sometimes** and is **moderately characteristic** of the student.
- **Circling 5** indicates that the behavior **occurs frequently** and is **very characteristic** of the student.

You are free to choose any number between 1 and 5 to represent the student's frequency estimate on a given item.

- Complete the scale in relation to your observations of the student during **the past month**.
- Think in terms of the full time during the day that the student is under your supervision.
- In your ratings, use the number (1, 2, 3, 4, or 5) that best indicates your frequency estimate for each student you are rating on each item on the scale.
- Rate the adaptive and maladaptive items in the same fashion.
- First complete the Adaptive Behavior Scale for all 6 students and then complete the Maladaptive Behavior Scale for all six students (three Internalizers and three Externalizers).

Important Note: There will be situations in which a teacher believes that the top three ranks are not adequately inclusive and that other students (such as those ranked #4 or #5 on Stage One) are exhibiting problematic behaviors that indicate behavior disorders. In this case, the teacher is encouraged to complete Stage Two measures on students ranked below the first three ranks on either the externalizing or internalizing rank order from Stage One. This is most likely to occur in schools where classrooms contain a high percentage of at-risk children. By rating these students on Stage Two measures, teachers can use the SSBD screening as an opportunity to bring these students to the attention of administrators or special educators.

Group Administration of SSBD Stages One and Two

It is more efficient and often desirable to conduct a group administration of Stages One and Two of the SSBD—a procedure that was used during most of the normative data collection for the SSBD. In a 1-hour meeting, Stage One and Two screening procedures can be completed for an entire school. To conduct a group administration of the SSBD, ask teachers to attend a 1-hour meeting and to

bring along their class lists. The following are the important elements of group administration:

1. Give teachers a brief overview and rationale for the SSBD, including a discussion of the importance of early identification and screening. It should be emphasized that this screening procedure does not eliminate the normal referral process but is designed to assist the school in the early identification of students who may be having behavior problems that put them at risk.
2. Ask teachers to read the description for externalizing behavior disorders. It is best to go over the externalizing and internalizing behavioral descriptions with the teachers; that is, reading aloud the definition and stopping at the end of the definition and examples section to ask if there are any questions.
3. Once the definitions are made clear, the teachers should complete the Stage One identification and ranking process for externalizers using the standard directions.
4. After all teachers have completed the ranking of students on the externalizing behavior profile, ask them to repeat the process for the internalizing behavior profile. Again, it is best to first review the behavioral description orally; that is, to read the behavioral description while the teachers follow along (see *SSBD Instruments and Forms Packet*).
5. After the teachers have completed the Stage One ranking on both externalizing and internalizing behavioral dimensions, they should be given copies of the Stage Two rating instruments. Give each teacher three copies of the Stage Two forms that include the Critical Events Scale and the Combined Frequency Index for adaptive and maladaptive behavior to rate the three highest-ranked externalizers and the three highest-ranked internalizers from Stage One.

Remind teachers that the front page of the Critical Events and Combined Index Forms has identifying information which indicates whether the child is a first, second, or third ranked student on Stage One. The Critical Events Index and the Combined Frequency Index are identical for both externalizing and internalizing students. However, the forms have been color-coded with **green** for internalizers and **blue** for externalizers so that it is easier to keep these forms separate during scoring and data collection.

Be sure to encourage teachers to raise their hands if there are any questions during this phase. As teachers complete these forms, you will have an opportunity to move throughout the

group and answer questions individually. It is suggested that teachers complete the Critical Events Scale(s) first. Therefore, the suggested procedure is to have the teachers complete the Critical Events Scale for the three highest ranked externalizers and then go to the maladaptive and adaptive scales for those same three children. After the teachers have completed all Stage Two forms for the three highest ranked externalizing students, they should then complete the Critical Events Scale and Combined Frequency Index for the top three internalizing students.

6. The SSBD administrator should collect the Stage One and Two forms and keep them together for each teacher. It is suggested that they either be placed in envelopes or clipped together to prevent any errors in scoring the forms at a later time.

Screening Identification Procedures

Stage Three

SSBD Screening Stages One and Two rely exclusively upon teacher rankings and ratings of student behavior and are thus dependent upon the accuracy of teacher judgement. In Stage Three, direct observations of student behavior are independently recorded in naturalistic settings (i.e., classroom and playground) by a school professional other than the teacher. The observations are recorded by school personnel such as the school psychologist, counselor, resource teacher and others who have been trained to use these observation codes.

Stage Three measures should be administered only by personnel who are fully conversant with the process. Training manuals for both the classroom and playground observation codes have been developed to help raters reach the necessary level of accuracy. It is mandatory that the person responsible for doing the classroom or playground observation read and study the respective manuals for each before conducting the observations. In addition, a videotape has been developed for use in training observers to use the Academic Engaged Time (AET) and Peer Social Behavior (PSB) codes. Specific instructions for using the video in the observer training process are contained in the video narrative. The training videotape also contains precoded situations so that local site re-

cordings can be compared for accuracy with those of professionally trained observers. In addition, norm tables for the codes and code categories are provided as appendices to the AET and PSB training manuals. These tables, provided by age and sex for externalizers, internalizers, and normal comparison students, are derived from the national norm sample of 1300 cases recorded on the SSBD Stage Three measures.

Students who meet or exceed normative criteria on the two rating tasks in SSBD Stage Two are observed in classroom and playground settings on two separate occasions each (Note: Specific Decision Criteria for passing Stage Two are contained in a later section.). Stage Three observations serve three purposes in the screening-identification process:

1. they verify or confirm the teacher's rankings/ratings of student behavior in Stages One and Two,
2. they provide a direct measure of the two most important behavioral adjustments children are required to make in school (i.e., to teachers and peers, respectively), and
3. they make it possible to assess the student's normative level(s) in relation to classroom and peer adjustment areas.

Observations recorded in the classroom provide a direct measure of the student's behavior in relation to the requirements of an academic setting and to the teacher's behavioral expectations. Observations recorded during recess periods on the playground provide a measure of the student's social adjustment and interactions with peers in less structured situations. Both measures provide important information relative to school success and peer social relations.

As an **optional procedure** for further evaluating the target student's behavior in relation to teacher perceptions of same, it is recommended that classroom and playground observations be also conducted on a same-sex, non-referrable student whose behavior the teacher considers to be within normal limits. A normative peer should be targeted for observation in both the classroom and playground observation settings. It is important that the teacher nominate the student rather than for the observer to select her or

him. If there are no behavioral differences between the target student and a normal peer during classroom and/or playground observations, then referral to a child study team may not be indicated. Equivalent observation data recorded on a same-sex, normal peer also provides an important measure of the behavioral ecology of classroom and playground settings.

Two observations are recorded in classroom and playground settings to provide an adequate sampling of student behavior. Each observation is recommended to be at least 15 minutes long. The following instructions should be carefully followed when recording these observations. The observations should be recorded on no fewer than two separate days (e.g., one classroom and one playground observation on each day).

Academic Engaged Time Observation

Academic Engaged Time (AET) is a very important indicator of a student's academic success and general adjustment to the requirements of academic settings. AET refers to the amount of time a student spends actively engaged attending to and working on relevant academic material. Many students with behavior disorders experience difficulties with normal academic demands that are appropriate to their abilities.

AET means that the student is appropriately engaged in working on assigned academic material that is geared to her/his ability and skill levels. While academically engaged, the student is (a) attending to the material and the task, (b) making appropriate motor responses (e.g., writing, computing), and (c) asking for assistance (where appropriate) in an acceptable manner. Interacting with the teacher or classmates about academic matters or listening to teacher instructions and directions are also examples of AET. Not attending to or working on the assigned task, breaking classroom rules (out of seat, talking, disturbing others, etc.) or daydreaming are not examples of AET.

Recording Instructions

- Step One** Select a seatwork period in which at least 15-20 minutes of class time has been allocated for independent work on an assigned academic task.
- Step Two** Note the hour and minute that you begin observing and record it on the attached AET recording form.
- Step Three** Record the amount of time the student displays behavior consistent with the definition. Let the stopwatch run when the student is academically engaged and turn it off when she/he is not. Restart it when the pupil is again academically engaged. Repeat this procedure throughout the recording interval.
- Step Four** Record the time you stop on the AET Recording Form. Computation of AET is covered in the section on scoring SSBD measures.
- Step Five** Record the data from the two classroom observations on the attached AET recording form.
- Step Six** Average the two AET observation sessions to obtain an overall AET score. You can do this by averaging the two AET times or by adding the stopwatch times together for the two sessions and dividing by the total of the two session lengths.

A sample AET recording form and computation procedures are included in the Stage Three Scoring Procedures section. A manual for the AET code is provided in the SSBD training materials. A videotape is also available to assist in training classroom observers to use this code.

Peer Social Behavior Observation

The purpose of these observations is to assess the quality and nature of the student's social behavior during recess periods. As a rule, elementary-aged students distribute their recess time across four types of activities. These are

social engagement,
participation in structured games and activities,
parallel play, and
alone.

The amount and quality of time the observed student spends in these four categories is systematically recorded during two recess periods on at least two separate days.

Observation forms for recording playground observations are provided with the SSBD materials. A manual for the Peer Social Behavior (PSB) code is provided in the SSBD training materials. The code category definitions, coding form, recording instructions, and coding guidelines should be carefully studied before beginning an observation. A videotape has also been developed to help the user reach a level of consistent coding. It is extremely important that all observers demonstrate reliability in coding the vignettes on the videotape before they observe in playground settings.

Code Category Definitions

SOCIAL ENGAGEMENT (SE) refers to an exchange of social signals between two or more children that involves verbal or non-verbal interaction. Social engagement is coded when the target child is physically oriented toward another child (or children), is exchanging social signals of a reciprocal, purposeful nature with them and produces verbal behavior in some form during the recording interval.

PARTICIPATION (P) is coded when the target child is participating in a game or activity, with one or more children, that has a clearly specified or agreed upon set of rules or is recognizable as a

game. Examples are kickball, hopscotch, jumprope, soccer, playing catch, and so forth.

PARALLEL PLAY (PLP) is coded when the target child is engaged in some activity within 5 feet of another child but is not interacting (either verbally or non-verbally) with her/him. Although the activities the students are engaged in may be identical, the target student and others are behaving independently of each other. Examples of PLP include playing in a sandbox next to another child, running in a group, or sitting on a swing set with one or more students. A child engaged in self-talk (i.e., verbal behavior not directed to anyone else) would be coded PLP if she/he met the other conditions of the Parallel Play category.

ALONE (A) is coded when the target student is **not** within five feet of another student, is not socially engaged, and is not participating in a game or structured activity with other students. Examples include sitting, standing, shooting baskets, kicking balls off walls and so forth. A student engaged in self-talk (i.e., verbal behavior not directed to anyone else) would be coded if she/he met the other conditions of the Alone category.

No Code (N) refers to no codeable response and is recorded when the target student's playground behavior cannot be accurately coded in one of the above five categories (e.g., the child is talking to an adult during recess).

The Coding Form

Copies of the PSB recording form are included in the SSBD Instruments and Forms Packet and should be used to observe and record child behavior according to the category definitions above during recess periods on the playground. This form is divided into two equivalent sections of 20 ten-second intervals. The five categories of SE, P, PLP, A, and N are available for coding during each 10-second interval. A total of 40 ten-second intervals can be recorded on each sheet. The complete SSBD kit contains an audio cassette tape which notes the end of each 10 second interval. The tape begins with interval number 1 and the narrator reads out the

specific interval and goes up to interval number 90 on each side of the tape.

Overview of PSB Recording Instructions

Follow the steps below in recording your playground observations.

- Step One** Write in the student's name, the date and the start time of your observation at the top of the PSB recording form.
- Step Two** Code the target child's playground behavior during successive 10-second intervals by moving downward through the two columns on the attached recording form.
- Step Three** Stand close enough to observe and record the target child's playground social behavior but not so close as to disrupt ongoing social activities or interactions.
- Step Four** Observe the target child's behavior carefully during the 10-second interval and record the code categories observed near the end of the interval.
- Step Five** Code the SE and P categories using either a (+) to designate positive behavior or a (-) to designate negative, aggressive or otherwise inappropriate behavior. Code the PLP, A and N categories by using a check to designate their occurrence.
- Step Six** At the end of the session, fill in the stop time and compute the length of the session in minutes.

Brief Overview of Coding Guidelines

Study the following coding guidelines carefully and use them to guide your observing and recording.

- SE can be coded only under free-play conditions at recess (i.e., the target student is not engaged in a game or structured activity of any kind).

- Only one category is coded for each 10-second interval. You observe for the full 10 seconds and then decide which code category represents the student's overall behavior for that interval.
- If the target student changes from one activity (i.e., code category) to another (e.g., from SE to P) during a 10-second interval, record only the code category that best represents that student's behavior for that interval.
- If the target student moves out of your sight during a given interval, code N. (Note: If the target student is talking to or interacting with an adult on the playground, code the N category using a dot [•] instead of a check [✓].
- Code the SE and P categories by placing a plus (+) or minus (-) in the appropriate recording column(s). Code a minus (-) if the target student's behavior is negative, aggressive or inappropriate in any way (e.g., being crabby, hostile, angry, verbally abusing others, pushing, shoving or otherwise aggressive toward others, arguing, teasing, refusing to play by game rules, humiliating or intimidating others and so forth). Code a (+) if the target child is displaying positive social behavior toward others (e.g., sharing, cooperating, helping others, interacting appropriately and/or participating in an acceptable manner within structured games and activities).

The first stage of the SSBD requires no scoring or calculation since the three highest ranked students on either the externalizing list or internalizing list automatically pass this screening gate. In Stage Two of the SSBD, the teacher completes the Critical Events Checklist and Combined Frequency Index for Adaptive and Maladaptive Behavior on the six highest ranked students (three externalizers and three internalizers). The scoring of each of these measures is described below.

The Critical Events Checklist

The scoring of the Critical Events Checklist is very straightforward. You simply add up the number of items that have been checked on the scale. If the teacher has written in an item in the space provided (items 34 and 35 are provided as blanks) include a point for each of these in your total score. Compute this score for each of the three Externalizing students and three Internalizing students. There is a space provided at the end of the Critical Events Checklist form to record the score. The student's score on the Critical Events Checklist can range from 0 (no items checked) to 35 (all items plus two write-in items). This score will be used in determining whether the student meets or exceeds Stage Two passing score criteria; this will be discussed in the next section of this manual (see Decision Criteria Procedures).

The Combined Frequency Index

To score the Combined Frequency Index, compute one score for the Adaptive Behavior Scale and one for the Maladaptive Behavior Scale. The scoring procedure is the same for both scales. The total score for each scale is obtained by adding up the score for each item and tabulating the total. Each item on the scale ranges from 1 to 5; that is, the teacher can assign a value from 1 (never) to 5 (frequently). This Likert scale allows the teacher to judge the frequency of each behavior on the scale.

The Adaptive Behavior Rating Scale

An adaptive behavior score is obtained by adding the item scores for each item on the scale (that is the number circled by the teacher for each item) and deriving a total score. For example,

Never		Sometimes		Frequently		Item
1	2	3	4	5		(1) <i>Follows established classroom rules</i>
1	2	3	4	5		(2) <i>Is considerate of the feelings of others</i>

In the example above, the score for the Adaptive Behavior Scale using only the two items shown in the example would be **9**. This was obtained by adding the circled scores for each item. Follow this procedure for all 12 items and obtain a total score. The lowest score possible on this scale is 12 or 1 point for each of the 12 items. The highest score possible is 60 or 5 points for each item. Record the total Adaptive Score in the box provided on the Adaptive Behavior Rating Form. Passing criteria for the Combined Frequency Indices are contained in the next section of the manual.

The Maladaptive Behavior Rating Scale

The Maladaptive Behavior rating scale is scored in the same way as the Adaptive Behavior Scale, by adding up the circled scores for each item to calculate a total. This scale has 11 items and the lowest score possible is 11 or a 1 on each item. It should be noted, however, that if the teacher omits an item, the student could obtain a lower score than 11. If more than one item is omitted or not rated by the rater, it seriously jeopardizes the validity of the measure. In this case, it is recommended that you go back to the teacher or rater and get him or her to rate the omitted items. If all items are marked or circled, the highest score possible would be 55 or 5 points per item times 11 items.

Record the total score in the box provided on the Maladaptive Rating Form. The use of this score in determining a Gate Two

passing score will be covered in the Decision Criteria Section of this manual.

Academic Engaged Time (AET)

AET is computed by dividing the time on the stopwatch by the total time observed (e.g., 20 minutes) and multiplying by 100. For example, if the child was observed to be engaged in working on assigned academic material or attending to the task in an appropriate manner for 10 minutes and the total length of the observation period was 20 minutes, you would divide 10 by 20 which equals .5. Multiplying .5 by 100 converts this to a percentage which, in this instance, is 50% ($.5 \times 100 = 50\%$). In this example, the child was appropriately academically engaged during the observation period 50% of the time.

Record the data from the two classroom observations on the AET Recording Form. An example of this form, completed for the above results, is shown in Figure 3 on the following page. You should average the two AET observation sessions to obtain an overall AET score. You can do this by averaging the two AET scores computed as described above or by adding the stopwatch times together (total engaged time across two observations) and dividing by the total time of the observation session.

Figure 3 (Example)
AET Recording Form

Systematic Screening for Behavior Disorders
ACADEMIC ENGAGED TIME (AET) RECORDING FORM*

Student Name Brett Kinton School Edgewood Grade 2
Teacher Name B. McQueen Observer Norma
Reliability Observer Stuart

SESSION #1

Date 5/27
Time Start 10:00 Time Stop 10:20 Length of Session 20 min.
10 min. + 20 = 5 x 100 = 50%
Time on Stopwatch Length of Session AET % AET

Convert time to total # of seconds (i.e., minute equals 60 seconds) before computing.
Divide time on stopwatch by total time observed.

Classroom Activity During Observation

Reading

SESSION #2

Date 5/30
Time Start 9:00 Time Stop 9:15 Length of Session 15 min.
5 min. + 15 = 330 x 100 = 33%
Time on Stopwatch Length of Session AET % AET

Convert time to total # of seconds (i.e., minute equals 60 seconds) before computing.
Divide time on stopwatch by total time observed.

Classroom Activity During Observation

Math activities

Total Time Engaged for Sessions 1 & 2 = <u>900</u> seconds	= <u>43</u>
Total Time Observed for Sessions 1 & 2 = <u>2100</u> seconds	Total AET
Average Percent AET for Sessions 1 & 2 = Total AET _____ x 100 = <u>43%</u>	Percent AET

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Peer Social Behavior (PSB)

Summary scores are easily computed from the PSB Code observations by simply dividing the total number of intervals that you observed during the observation session into the intervals recorded under different categories.

For example, to compute the percent of time that the target child spent in social engagement (SE) on the playground, divide the total number of intervals observed in the session (say 180) into the number recorded under the SE category (say 90) and multiply the result by 100. The percent SE is 90 divided by 180 x 100 = 50%. The following PSB individual code category scores and summary scores (code category combinations) can be computed from the PSB data you record and can be plotted on the attached summary sheet (see *SSBD Instruments and Forms Packet*).

% Social Engagement	= SE intervals divided by total intervals x 100.
% Social Interaction	= SE + P intervals divided by total intervals x 100.
% Participation	= P intervals divided by total intervals x 100.
% Parallel Play*	= PLP intervals divided by total intervals x 100.
% Alone*	= A intervals divided by total intervals x 100.
% No Codeable Response	= N intervals divided by total intervals x 100.
% Positive Interaction	= SE (+) intervals divided by total intervals x 100.
% Negative Interaction	= SE (-) intervals divided by total intervals x 100.
Total % Positive Behavior	= SE (+) and P (+) intervals divided by total intervals x 100.
Total % Negative Behavior*	= SE (-) and P (-) intervals divided by total intervals x 100.

* Denotes codes used in calculating passing criteria for Stage Three SSBD.

A sample PSB observation is shown in Figure 4, which is a hypothetical example of an observation of Britt for twenty 10-second intervals. Each of the PSB code categories and summary scores are computed and listed in Figure 5, which is a Completed PSB Observation Summary Form illustrating the results of Britt's observation (Figure 4). The Alone, Parallel Play, and Total Negative Scores on the PSB Summary Form will be used directly in determining if the student exceeds State Three Exit Criteria. Normative tables, by age and sex, have also been provided in the Appendices to this manual for all PSB code categories. The reader is referred to these appendices for comparative information on normative levels for externalizers, internalizers and non-ranked control students.

Figure 4 (Example)
Recording Form for Peer Social Behavior

Systematic Screening for Behavior Disorders
PEER SOCIAL BEHAVIOR RECORDING FORM*

Student Name Britt Kirsten Teacher Name B. McQueen
 School Edgewood Grade 2 Observer Norma
 Reliability Observer _____ Date 5/7 Time Start 10:00
 Time Stop 10:04 Length of Session 3 min. 20 sec.

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1	+				
2	+				
3		+			
4		-			
5		-			
6		+			
7	+				
8	-				
9	-				
10			✓		
11				✓	
12				✓	
13				✓	
14					•
15					•
16	+				
17	+				
18	+				
19	+				
20	-				

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

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Systematic Screening for Behavior Disorders

PEER SOCIAL BEHAVIOR

OBSERVATION SUMMARY SHEET*

	Number of Intervals*	Observation #1**	Number of Intervals*	Observation #2**	Average of 1 and 2
1. Social Engagement (SE)	<u>10 ÷ 20</u>	<u>50</u> %	_____	_____ %	_____ %
2. Participation (P)	<u>4 ÷ 20</u>	<u>20</u> %	_____	_____ %	_____ %
3. Parallel Play (PLP)	<u>1 ÷ 20</u>	<u>5</u> %	_____	_____ %	_____ %
4. Alone (A)	<u>3 ÷ 20</u>	<u>15</u> %	_____	_____ %	_____ %
5. No Codeable Response (N)	<u>2 ÷ 20</u>	<u>10</u> %	_____	_____ %	_____ %
6. Social Interaction (SI)	<u>14 ÷ 20</u>	<u>70</u> %	_____	_____ %	_____ %
7. Negative Interaction (NI)	<u>3 ÷ 20</u>	<u>15</u> %	_____	_____ %	_____ %
8. Positive Interaction (PI)	<u>7 ÷ 20</u>	<u>35</u> %	_____	_____ %	_____ %
9. Total Positive Behavior	<u>9 ÷ 20</u>	<u>45</u> %	_____	_____ %	_____ %
10. Total Negative Behavior	<u>5 ÷ 20</u>	<u>25</u> %	_____	_____ %	_____ %

**** Enter the percentage of time spent for each category by dividing the total number of intervals that you observed during the observation session into the intervals recorded under different categories and multiplying by 100.**

Decision Criteria Procedures

This section describes the procedures used to determine if students should pass the screening gates of Stage Two and/or Three measures. As mentioned, there are no passing scores for Stage One, as the top three Externalizers and top three Internalizers automatically go on to Stage Two. Because different decision rules are used for externalizers and internalizers, the two groups will be dealt with separately for each stage below.

Decision Rules

Stage Two

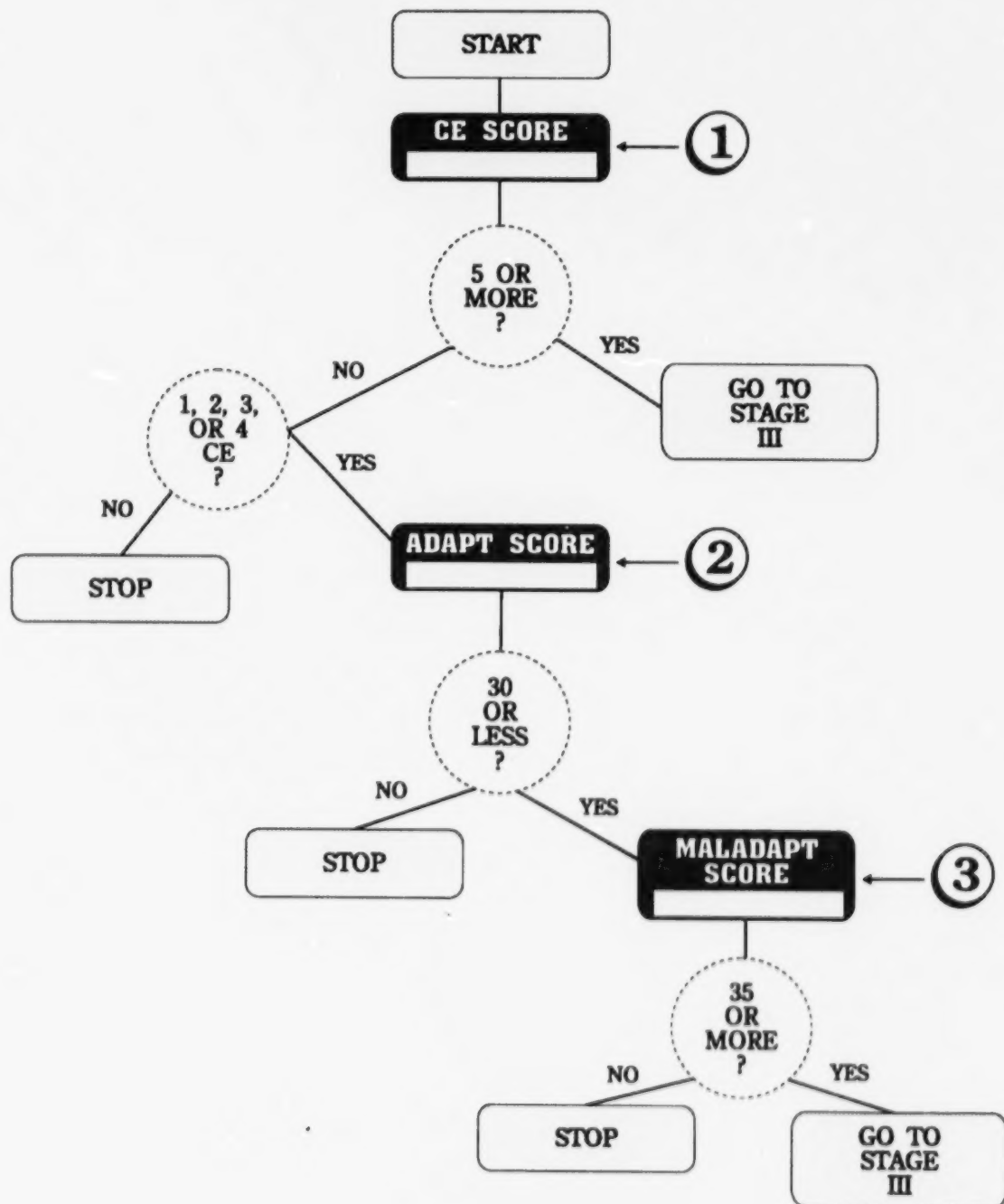
Externalizers

The decision rules (passing criteria) for Externalizers on Stage Two are shown in Figure 6. Stage Two decision rules include the use of all three Stage Two measures—The Critical Events Checklist, The Adaptive Score of the Combined Frequency Index, and the Maladaptive Score of the Combined Frequency Index.

The Critical Events Score is used first. In the box noted with a 1 on Figure 6, you write in the number of Critical Events checked by the teacher for the student.

- If the student received a score of 5 or more on the Critical Events Checklist, the student exceeds Stage Two exit criteria and passes Gate Two. By exceeding Stage Two criteria, the student should then be observed using Stage Three observation instruments.
- If the Critical Events Score is **less than 5 but equal to or greater than 1** (that is, 1, 2, 3, or 4 critical events), the student should be checked against the remaining criteria. The Adaptive Score of the Combined Frequency Index is used next. Write the Adaptive Score in Box 2 of Figure 6. If the Adaptive Score is greater than 30, the student does not pass through the Stage Two gate. If the Adaptive Score is 30 or less, the student's Maladaptive Score should be examined. Write

Figure 6
Stage Two Decision Rules for Externalizers



the Maladaptive Score in Box 3. If the Maladaptive Score is 35 or greater, the student meets the exit criteria for Stage Two and moves on to Stage Three.

In summary, the student must have one or more critical events marked **and** receive an Adaptive Score of 30 or less, **and** a Maladaptive Score of 35 or more for an Externalizing student to pass Gate Two. The use of the three scores on Stage Two measures enhances the discrimination between Externalizers and non-ranked, control students. The alternative way that a student can pass Stage Two is by having a Critical Events Score of 5 or more.

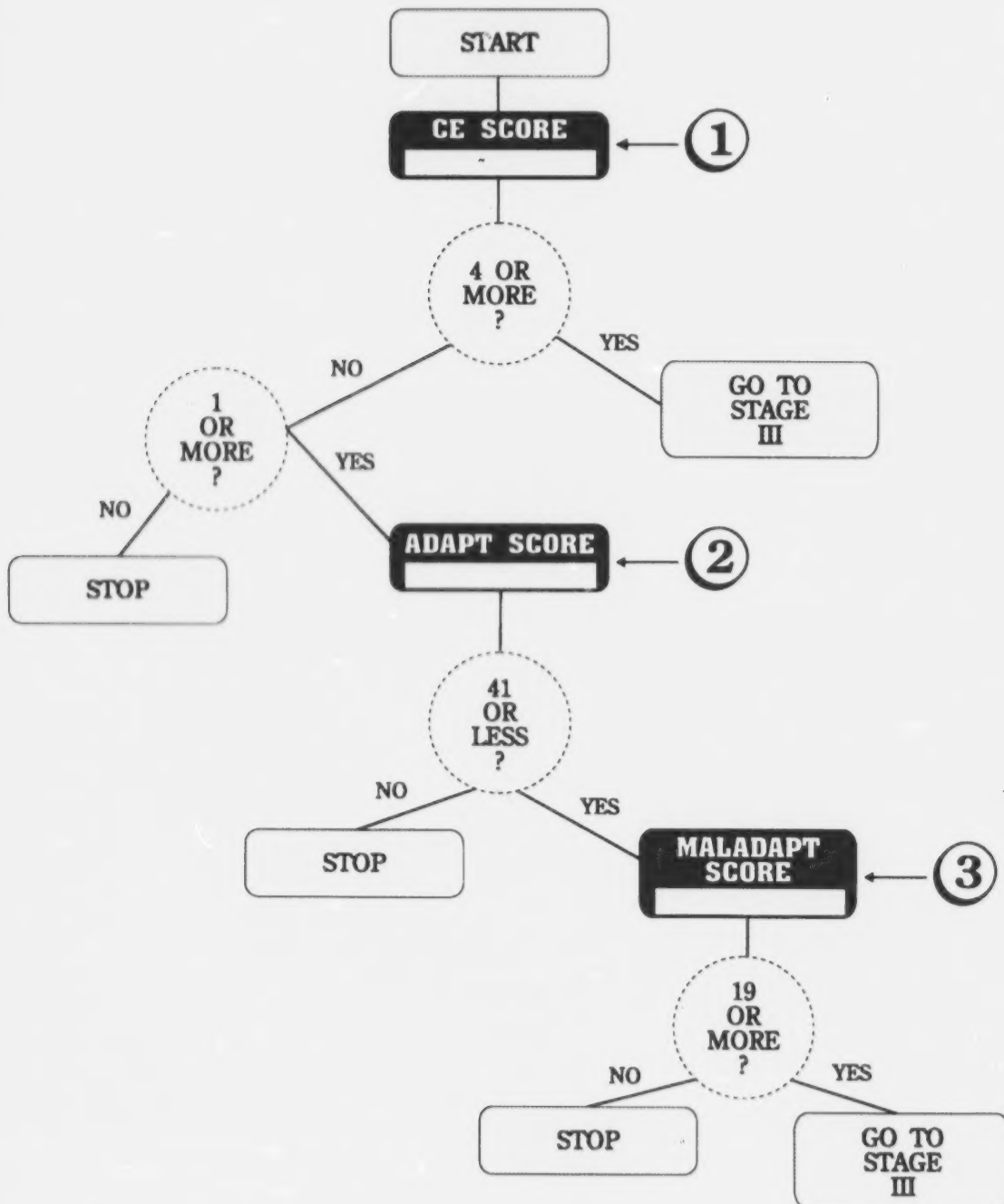
Internalizers

The decision rules process for Internalizing Students at Stage Two is similar to that for Externalizers, but the criterion levels differ. To evaluate an internalizing student using Stage Two criteria, first write the Critical Events Score for the student in Box 1 shown in Figure 7. There are two ways a student can pass through Stage Two.

- If the student's score on the Critical Events Checklist Score is greater than 4, the student passes Stage Two Exit Criteria and would go on to be observed using SSBD Stage Three measures.
- The alternative way to pass Stage Two Criteria is to meet minimal criteria for all three Stage Two measures. The Critical Events score must be at least 1 for the student to continue through the Stage Two decision rules to determine if she/he meets or exceeds exit criteria. For example, using the flow Chart shown in Figure 7, you would write in the Critical Events Score in Box 1. If the score was a 1, 2, or 3, the student partially meets exit criteria and you would continue through the Decision rules. The second step is to write in the Adaptive Score in Box 2. If the Adaptive Score is 41 or less, the student meets criteria and you go on in the decision process to the Maladaptive Score. Write the Maladaptive Score in Box 3 of Figure 7. If the Maladaptive Score is 19 or more, the student meets the passing exit criteria for Stage Two.

In summary, there are two ways for Internalizers to meet or exceed exit criteria for Stage Two. The first is to have a score of 4 or more on the Critical Events Scale. If a student has 4 or more Critical Events noted, then she/he passes Stage Two and goes on to Stage Three. Alternatively, the student must have one or more Critical Events **and** an Adaptive Behavior Score of 41 or less **and** a Maladaptive Behavior Score of 19 or less to move on to Stage Three evaluation.

Figure 7
Stage Two Decision Rules for Internalizers



Percentage of Students Passing SSBD Stage Two

Tables 1 and 2 show the percentage of Externalizing students that are expected to pass exit criteria for Stage Two and move on to Stage Three. These percentages are based on the SSBD national normative sample and the actual percentage of students passing Stage Two using the decision criteria described in this manual.

Table 1		
Percentage of Externalizers and Control Subjects Passing SSBD Stage II Criteria		
Stage II	% of Externalizers	% of Controls
≥5 Critical Events or ≥1 Critical Event and Adaptive ≤ 30 and Maladaptive ≥ 35 and Passing Criteria	28.4 85.6 27.6 29.8 33.8	0 8.4 0.4 0.3 0

The actual number of students meeting or exceeding exit criteria for Stage Two will vary by school district and by school. A later section of the manual explains how to use different criteria or cut-off scores for Stage Two measures to either increase or decrease the number of students who meet or exceed passing score criteria at Stage Two in order to meet the unique needs of a particular school.

It should be noted that for Tables 1 and 2, the percentage of students passing these criteria are based on data that directly compare the Externalizing and Internalizing student (top three ranked) with two randomly selected control students from the same classroom. The tables graphically show the percent of each group meeting or exceeding exit criteria or achieving passing scores. For example, in Table 1, 28.4% of Externalizers had 5 or more items checked on the Critical Events Scale, while no control subjects had that many critical events marked. At the bottom of Tables 1 and 2, there is a direct comparison of the percent of

students passing Stage Two exit criteria using either the Critical Events Score alone (4 for Internalizers and 5 for Externalizers) or the combination of scores on the Critical Events Scale, and Adaptive and Maladaptive Scores. In the case of Externalizers, approximately 1/3 passed the Stage Two criteria (33.8%) while no control students did (Table 1); and for the Internalizers, 29.7% passed the Stage Two criteria compared to 1.3% of the control students (Table 2).

Table 2
Percent of Internalizers and Control
Subjects Passing SSBD Stage II Criteria

Stage II	% of Internalizers	% of Controls
≥4Critical Events	20.3	0.4
≥1 Critical Events and Adaptive ≤ 41 and Maladaptive ≥19	76.3 36.1 32.2	8.4 2.5 8.4
Passing Criteria	29.7	1.3

Clinical Use of Stage Two Measures

In addition to converting a student's raw score on Stage Two measures to a standard score or percentile, the SSBD user can obtain valuable information by looking carefully at individual items on these measures. The teacher's ratings on Stage Two measures provide behavioral content information on the nature of the specific deficits or excesses that were probably causes of the student being rated high on either the Externalizing or Internalizing dimension at Stage One.

A careful review of the specific items on these scales can be valuable in developing school-based interventions or targeting specific behaviors that need further assessment. For example, the specific Critical Events checked by the teacher identify target

behaviors that have serious implications for long-term adjustment. The authors have referred to them as "Behavioral Earthquakes" because they involve low frequency but highly salient behavioral events that can indicate very serious adjustment problems. Positively checked Critical Events should be examined carefully for their adjustment implications and evaluated for either referral or intervention.

The Adaptive and Maladaptive Behavior rating scales can also provide valuable information on the specific nature or content of identified behavioral deficits and behavioral excesses. The rating scales cover Problematic Maladaptive Behavior as well as Adaptive Behaviors that are desired by teachers and peers, and that support social-behavioral adjustment. By examining individual items that the teacher rated as high on the Maladaptive Scale or low on the Adaptive Scale, the user can assess more carefully the nature of the behaviors exhibited by the student that are of concern.

The user can compare the specific item scores for the student with item means for the normative sample. Tables 3, 4, and 5 provide means and standard deviations for each item on the SSBD Adaptive and Maladaptive Rating Scales by sex of the student and by normative group (e.g., Non-identified, Externalizers, and Internalizers). By reviewing Tables 3, 4 and 5, one can see that some items have been frequently scored either higher on the Maladaptive Scale or lower on the Adaptive Scale for a particular normative group. These tables are provided so the user can conduct a more in-depth analysis of the meaning of student scores on Stage Two measures. The specific content of the items can provide valuable targets when designing remedial interventions and may also be useful in evaluating the impact or effect of classroom interventions, since one might expect that specific item scores could be sensitive to targeted behavior change programs.

Table 3
Item Means and Standard Deviations for Nonidentified Students
on Adaptive and Maladaptive Behavior Indices

ADAPTIVE							MALADAPTIVE						
Item #	Male		Female		Overall		Item #	Male		Female		Overall	
	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd		$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd
A1	3.57	1.12	4.29	.95	3.87	1.11	M1	2.45	.35	1.60	1.03	20.90	1.30
A2	3.46	1.14	4.15	1.00	3.75	1.13	M2	1.87	1.05	1.84	1.05	1.86	1.05
A3	3.45	1.19	4.00	1.09	3.68	1.18	M3	1.86	1.22	1.33	.86	1.64	1.11
A4	3.35	1.21	3.88	1.21	3.57	1.24	M4	2.13	1.08	1.69	.99	1.95	1.07
A5	3.66	1.20	4.19	1.12	3.88	1.20	M5	2.45	1.39	1.63	1.09	2.11	1.34
A6	3.61	1.13	4.07	1.06	3.80	1.13	M6	1.79	1.11	1.40	.87	1.63	1.04
A7	3.64	1.18	4.07	1.15	3.82	1.19	M7	2.62	1.52	1.70	1.20	2.23	1.46
A8	3.31	1.14	3.75	1.11	3.49	1.15	M8	1.98	1.16	1.57	.98	1.81	1.11
A9	3.44	1.26	4.06	1.13	3.70	1.25	M9	1.31	.78	1.38	.84	1.34	.80
A10	2.65	1.27	3.22	1.31	2.89	1.32	M10	2.19	1.37	1.65	1.15	1.96	1.31
A11	3.54	1.16	4.27	.99	3.85	1.15	M11	2.14	1.33	1.85	1.22	2.02	1.29
A12	3.25	1.17	3.60	1.27	3.40	1.22							
Scale Totals:													
	41.2	10.9	47.7	10.2	43.9	11.1		22.9	9.9	17.9	8.3	20.8	9.6

Table 4
Item Means and Standard Deviations for Internalizers and Externalizers
on the Adaptive Behavior Index

INTERNALIZERS							EXTERNALIZERS						
		Male		Female		Overall			Male		Female		Overall
Item #	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd	Item #	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd
A1	4.06	.96	4.46	.77	4.29	.88	A1	2.90	.90	3.07	.92	3.87	1.11
A2	3.87	.98	4.27	.87	4.10	.94	A2	2.83	.94	3.00	1.00	2.86	.95
A3	3.37	1.20	3.87	1.08	3.65	1.16	A3	3.05	1.05	3.23	1.08	3.09	1.06
A4	3.38	1.17	3.76	1.24	3.60	1.22	A4	2.87	1.06	2.99	1.02	2.89	1.05
A5	3.93	1.12	4.19	1.16	4.08	1.15	A5	3.14	1.11	3.36	1.14	3.18	1.12
A6	3.70	1.13	3.97	1.06	3.85	1.10	A6	3.14	1.00	3.25	1.04	3.16	1.01
A7	3.62	1.21	3.92	1.21	3.79	1.22	A7	3.25	1.08	3.36	1.15	3.27	1.10
A8	3.15	1.08	3.46	1.09	3.33	1.10	A8	2.94	1.01	3.18	1.04	2.99	1.02
A9	3.37	1.25	3.98	1.12	3.72	1.22	A9	2.99	1.13	3.15	1.13	3.02	1.13
A10	2.34	1.17	2.84	1.27	2.63	1.26	A10	2.31	1.08	2.67	1.16	2.38	1.11
A11	3.88	1.09	4.37	.90	4.15	1.02	A11	2.93	.96	3.16	.96	2.98	.96
A12	2.86	1.12	3.18	1.27	3.04	1.21	A12	2.95	.98	3.06	1.05	2.97	1.00
Scale Totals:													
	44.4	9.3	46.3	8.9	44.4	9.3		35.5	8.2	37.4	9.0	35.9	8.4

Table 5
Item Means and Standard Deviations for Internalizers and Externalizers
on the Maladaptive Behavior Index

INTERNALIZERS							EXTERNALIZERS						
Item #	Male		Female		Overall		Item #	Male		Female		Overall	
	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd		$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd
M1	1.74	1.03	1.33	.74	1.51	.90	M1	3.27	1.17	2.93	1.18	3.20	1.18
M2	2.22	1.19	2.12	1.20	2.16	1.15	M2	1.97	1.01	2.04	1.06	1.98	1.02
M3	1.32	.77	1.16	.58	1.23	.67	M3	2.45	1.32	2.23	1.31	2.40	1.32
M4	2.01	1.05	1.73	.97	1.85	1.02	M4	2.53	1.02	2.37	1.09	2.50	1.04
M5	1.68	.98	1.33	.73	1.48	.86	M5	3.32	1.23	3.11	1.29	3.28	1.24
M6	1.27	.65	1.19	.58	1.22	.61	M6	2.33	1.22	2.36	1.27	2.34	1.23
M7	1.61	1.00	1.31	.74	1.44	.88	M7	3.66	1.22	3.50	1.28	3.63	1.24
M8	1.39	.78	1.29	.67	1.34	.72	M8	2.60	1.18	2.81	1.25	2.64	1.20
M9	1.22	.68	1.31	.77	1.27	.73	M9	1.44	.88	1.84	1.16	1.52	.96
M10	1.58	1.01	1.44	.91	1.50	.96	M10	2.90	1.36	3.02	1.41	2.93	1.37
M11	1.88	1.17	1.82	1.15	1.84	1.16	M11	2.64	1.39	2.94	1.41	2.70	1.40
Scale Totals:													
	18.1	6.4	16.4	5.7	17.2	6.1		29.4	8.5	29.3	9.1	29.4	8.6

Decision Rules for Stage Three Measures

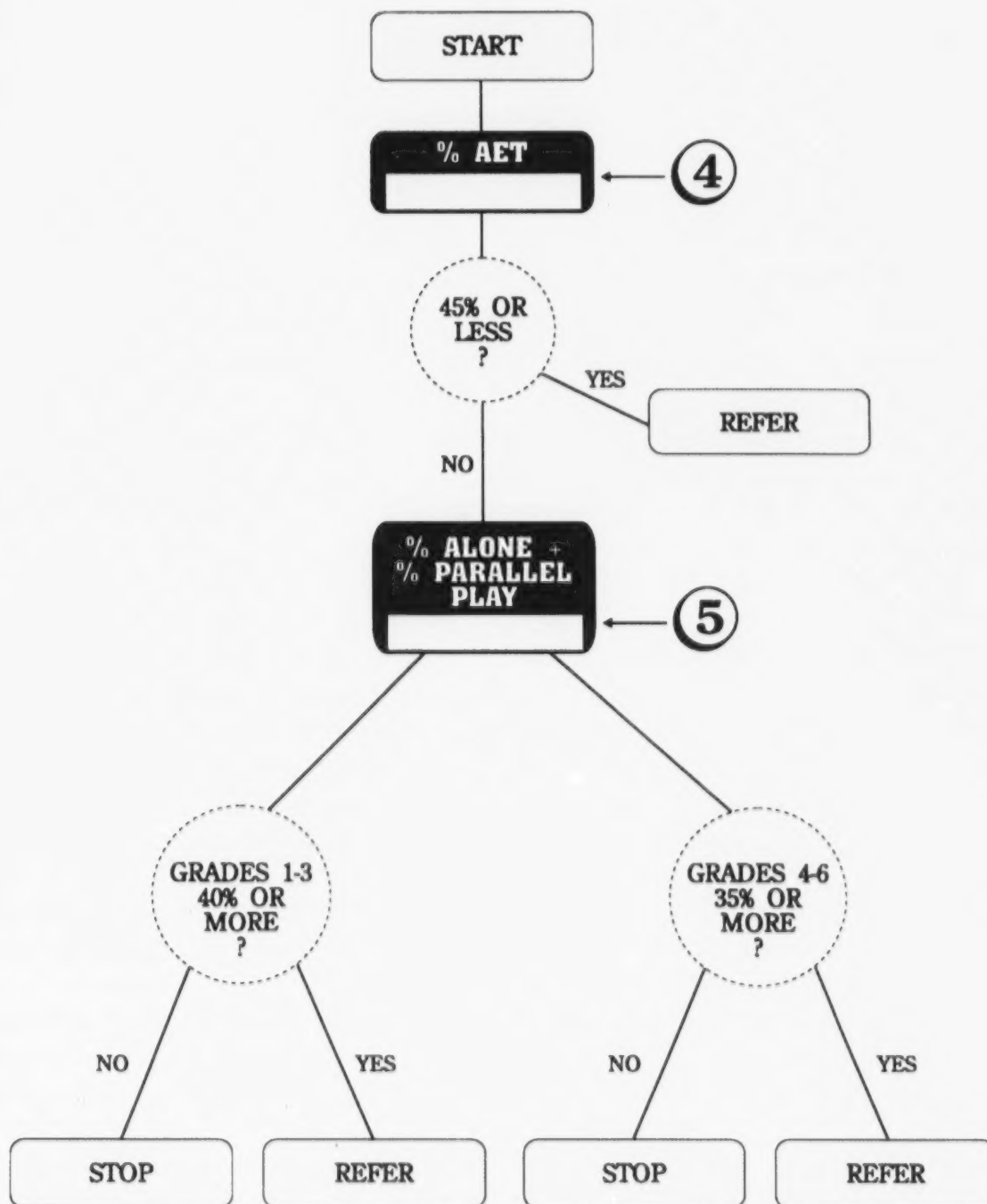
The observations in classroom and playground settings provide an independent verification of the teacher rankings and ratings used in Stages One and Two of the SSBD. The decision rules described below include separate passing criteria for the AET code used for recording classroom observations and the PSB code for recording peer social behavior during playground observations. Since the decision criteria for Externalizers and Internalizers are different, they are described separately below.

Stage Three Decision Criteria for Internalizers

There are two ways for internalizers to pass SSBD Stage Three exit criteria.

- The first involves use of the AET classroom observation code. The decision levels for Internalizers are displayed in Figure 8. The first step is to enter the computed average percent of time the student has been academically engaged during classroom observations in Box 4 of Figure 8. If the percent of Academic Engaged Time (AET) is 45% or less, the student exceeds exit criteria for Stage Three and is referred to the Child Study Team for more intensive evaluation.
- The second criterion for passing Stage Three utilizes the PSB codes of Alone **and** Parallel Play. After completing the playground observations using the PSB observation code, the observer computes the percent of time spent Alone and in Parallel Play using the observation summary form (Figure 4). The score derived from adding together these two PSB codes is used to determine if the student will pass Stage Three. Add together the percentage of time spent Alone and the percent of time spent in Parallel Play to derive a combined overall score (see guidelines for computation of the PSB code categories in the score computation section of this manual).

Figure 8
Stage Three Decision Rules for Internalizers



There are separate criteria for students in grades 1, 2, and 3 versus students in grades 4, 5, and 6. The criterion for primary grades (1-3) is 40% or more time spent in the Alone **plus** Parallel Play categories. For students in upper primary grades (4-6), the passing criterion is 35% or more of observed time spent in the Alone **and** Parallel Play code categories. If a student exceeds the grade-appropriate exit criteria for this combined score, she/he should be referred to the Child Study Team for additional evaluation.

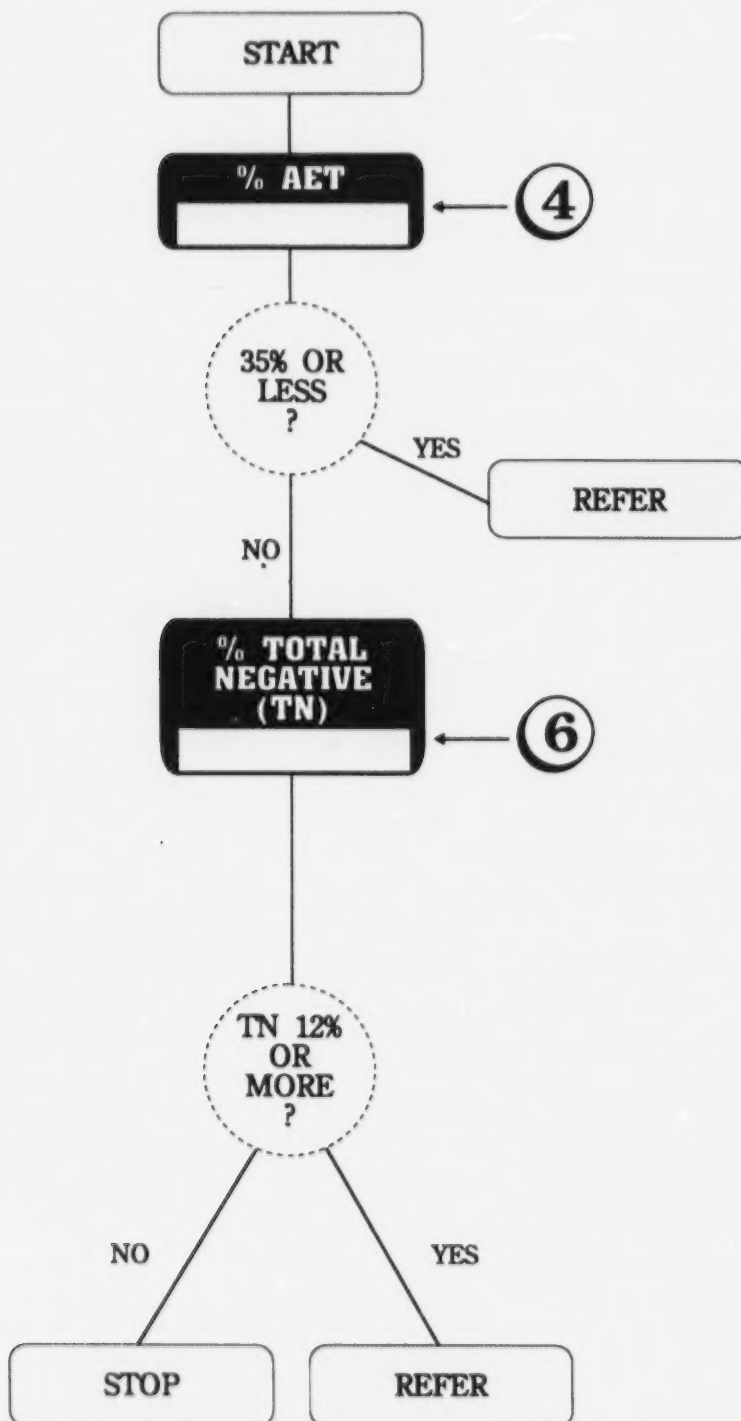
Information on recommended additional evaluation domains and instruments the reader may wish to consider in further assessing students who exceed Stage Three exit criteria is provided in the Suggested Additional Measures section of this manual.

Decision Rules for Externalizers on Stage Three

There are two avenues through which an externalizing student can pass Stage Three of the SSBD. The first is to obtain an AET score of 35% or less (Figure 9, Box 4). In the classroom observation, the student is observed for approximately two 15-minute periods of independent seatwork and the percent of time she/he is engaged is computed and averaged across the two observation sessions. If the average of these observations results in an AET of 35% or less, the student exceeds Stage Three criteria and should be referred to the Child Study Team for further evaluation.

The alternative decision criterion is based upon the percent of Total Negative (TN) behavior computed for the PSB. The user should enter this figure in Box 6, Figure 9. If the TN score is 12% or more, the student exceeds criteria for passing gate three and should be referred to the Child Study Team. If the Total Negative score is less than 12%, it does not meet the criterion for a referral. However, the TN and other PSB codes and summary scores should be reviewed for possible use in designing a pre-referral intervention.

Figure 9
Stage Three Decision Rules for Externalizers



Percentage of Students Expected to Pass Stage Three Criteria

The use of Stage Three Criteria, as described above, and shown on the Decision Rule Flow Charts (Figures 8 and 9) results in a known or expected percent of students meeting or exceeding these passing criteria. The percent of students who met or exceeded the passing score criteria for Stage Three measures during SSBD normative data collection activities is shown in Table 6 for Externalizers and Table 7 for Internalizers. The outcomes referred to in these tables are the percentages of norm group Externalizing, Internalizing and Control students who met or exceeded the Stage Three passing criteria.

EXTERNALIZERS Table 6 shows the percent of Externalizers and Control Subjects in the norm sample who passed out of Stage Three by exceeding normative criteria on either AET or Total Negative scores. For example, row one shows that 10.2 % of Externalizers had an AET score of 35% or less; while only 0.5% of the Control Students had an AET score this low. Alternatively, using the Total Negative Score (TN), the results shown in Table 6 indicate that 20.7% of Externalizers had a TN score of 12% or more, while only 5.2% of the Control Students had an equivalent score this high.

Table 6 also shows the total percent of subjects who met both Stage Two and Three exit criteria. Note that 29.6% of all Externalizers met or exceeded passing criteria for Stage Three. Only 5.7% of Control Students met this same criterion. When examining the percentage of students passing both Stage Two and Stage Three exit criteria, 17.3% of Externalizers passed both gates, while no control subjects exceeded these criteria.

Table 6
Percentage of Externalizers and Control Subjects
Passing Stage III Criteria or Passing Scores

Stage II	% of Externalizers	% of Controls
AET <35 or Total Negative >12	10.2	0.5
Passing Criteria	20.7	5.2
Passing both Stage II and Stage III	29.6	5.7
	17.3	0

INTERNALIZERS Table 7 shows the percent of Internalizing and Control students in the norm sample who met or exceeded passing criteria for Stage Three. This table follows the same format as above for Externalizers. As shown in Table 7, 10.4% of Internalizers in the norm sample met the AET passing criterion of less than 45% while only 3.5% of the Control students met or exceeded this criterion level.

Using the combination of the Alone plus Parallel Play categories, it is expected that 17.1% of Internalizers would meet or exceed the 40% criterion for grades 1-3 and that 16.1% would exceed the criterion of 35% for grades 4-6. Using these same combinations of PSB code categories, only 7.2% (grades 1-3) and 4.7% (grades 4-6) of Control students met these criterion levels.

Overall, 24.2% of the Internalizers passed either the AET or Alone plus Parallel Play criteria. Considering both Stage Two and Three criteria 10.9% of the Internalizers exceeded the cut-off scores for both stages of the SSBD. These criteria make it very unlikely that a non-ranked student would meet these cutoff score levels. This is confirmed in Table 7 where only .5% of the control students met both Stage Two and Three exit criteria.

Table 7 Percentage of Internalizers and Control Subjects Passing Stage III Criteria		
Stage II	% of Internalizers	% of Controls
AET <45	10.4	3.5
Alone + Parallel Play (>40 Grades 1-3)	17.1	7.2
Alone + Parallel Play (>35 Grades 4-6)	16.1	4.7
Passing Criteria	24.2	9.4
Passing both Stage II and Stage III	10.9	0.5

Computing and Using Standard Scores for Stage Two Measures

There will be situations in which the SSBD user may wish to evaluate a specific student's scores on one of the Stage Two measures to determine how that student's score compares with the national normative sample. Tables 8 to 16 allow an easy conversion of a raw score to a standard score and/or percentile ranking for each Stage Two measure. The tables show each Stage Two measure (Critical Events, Adaptive and Maladaptive Behavior Rating Scales) and each norm group of students. There are separate tables for Externalizers, Internalizers and non-ranked Control students for each Stage Two measure.

These tables allow the user to compare a specific obtained raw score both with the appropriate normative comparison group (e.g., comparing an Externalizing student with the norm table for Externalizers) and the Control Group students (non-ranked) to determine his or her behavioral status relative to both groups. For

example, if the student is an Externalizer and obtains a score on the Critical Events Scale of 3, you would use Table 8 to find that a score of 3 converts to a T-score of 49 (the mean of T-scores is 50 with a SD of 10) and the percentile equivalent is 60. Additionally, the user may want to determine what a Critical Events Checklist score of 3 would equate to in relation to control or non-ranked students. Table 10 provides this information. This table allows the user to compare the standard score equivalent for two groups for the same score on this student. In this example, the Critical Events Score of 3 would convert to a T-score of 113 and a percentile of 99.9 for the Control Non-ranked student group (Table 10). These tables are provided for the reader's convenience so that any obtained score on Stage Two measures can easily be converted to a standard score (T-score) or percentile ranking for each student group.

Table 8
Conversion of Raw Scores to Standard Scores
on Critical Events Checklist for Externalizers

T-Score	Critical Events Score	Percentile
103	19	100
100	18	100
96	17	100
89	15	100
86	14	100
83	13	100
79	12	99
76	11	98
72	10	97
69	9	96
66	8	93
62	7	90
59	6	86
55	5	79
52	4	72
49	3	60
45	2	47
42	1	30

Table 9
Conversion of Raw Scores to Standard Scores
on Critical Events Checklist for Internalizers

T-Score	Critical Events Score	Percentile
95	11	100
90	10	100
85	9	99
80	8	99
75	7	98
70	6	96
65	5	94
60	4	89
55	3	80
50	2	69
45	1	51
40	0	24

Table 10
Conversion of Raw Scores to Standard Scores
on Critical Events Checklist for Non-Identified Students

T-Score	Critical Events Score	Percentile
135	4	100
113	3	100
91	2	99
69	1	98
47	0	92

Table 11
Conversion of Raw Scores to Standard Scores
on Adaptive Behavior Scale for Externalizers

T-Score	Adaptive Score	Percentile
78	60	100
77	59	100
76	58	100
75	57	99
74	56	99
73	55	98
71	54	98
70	53	97
69	52	96
68	51	96
67	50	95
65	49	94
64	48	92
63	47	91
62	46	89
61	45	86
60	44	83
58	43	82
57	42	78
56	42	75
55	40	71
54	39	68
52	38	64
51	37	59
50	36	55
49	35	51
48	34	46
47	33	41
45	32	36
44	31	32
43	30	27
42	29	24
41	28	20
39	27	16
38	26	13
37	25	10
36	24	8
35	23	6
34	22	5
32	21	3
31	20	2
30	19	2
29	18	1
28	17	1
26	16	0.6
25	15	0.3

Table 12
Conversion of Raw Scores to Standard Scores
on Adaptive Behavior Scale for Internalizers

T-Score	Adaptive Score	Percentile
67	60	100
66	59	97
65	58	95
64	57	93
62	56	91
61	55	87
60	54	85
59	53	82
58	52	78
57	51	74
56	50	70
55	49	67
54	48	63
53	47	60
52	46	56
51	45	52
50	44	48
48	43	44
47	42	40
46	41	36 ⁴
45	40	34
44	39	30
43	38	27
42	37	24
41	36	21
40	35	18
39	34	15
38	33	13
37	32	11
36	31	9
35	30	8
33	29	6
32	28	5
31	27	5
30	26	4
29	25	3
28	24	2
27	23	2
26	22	1
25	21	0.9
24	20	0.6
22	18	0.4
21	17	0.4
18	15	0.2
15	12	0.1

Table 13
Conversion of Raw Scores to Standard Scores
on Adaptive Behavior Scale for Non-Identified Students

T-Score	Control Score	Percentile
59	60	99
57	59	75
55	58	63
53	57	54
51	56	46
49	55	39
48	54	34
46	53	28
44	52	24
42	51	20
40	50	16
38	49	13
37	48	11
35	47	8
33	46	7
31	45	5
29	44	5
27	43	4
26	42	3
24	41	3
22	40	2
20	39	2
18	38	2
16	37	1
15	37	1
13	35	0.7
9	33	0.6
7	32	0.5
4	30	0.4
0	28	0.3
-23	15	0.2
-26	14	0.1

Table 14
Conversion of Raw Scores to Standard Scores
on Maladaptive Scale for Externalizers

T-Score	Maladaptive Score	Percentile
80	55	100
76	52	100
75	51	100
53	49	100
71	48	100
70	47	99
69	46	98
68	45	97
67	44	96
66	43	94
65	42	93
63	41	92
62	40	90
61	39	87
60	38	84
59	37	82
58	36	78
56	35	74
55	34	70
54	33	66
53	32	63
52	31	59
51	30	55
49	29	49
48	28	45
47	27	41
46	26	36
45	25	33
44	24	30
43	23	26
41	22	23
40	21	20
39	20	17
38	19	15
37	18	13
36	17	10
34	16	8
33	15	6
32	14	4
31	13	2
30	12	1
29	11	0.9

Table 15
Conversion of Raw Scores to Standard Scores
on Maladaptive Scale for Internalizers

T-Score	Maladaptive Score	Percentile
95	45	100
91	42	100
87	40	100
86	39	100
84	38	100
82	37	99
81	36	99
79	35	99
77	34	98
76	33	98
74	32	97
73	31	97
71	30	95
69	29	94
68	28	93
66	27	92
64	26	91
63	25	89
61	24	87
59	23	85
58	22	83
56	21	79
55	20	75
53	19	72
51	18	68
50	17	64
48	16	57
46	15	52
45	14	44
43	13	36
41	12	24
40	11	15

Table 16
Conversion of Raw Scores to Standard Scores
on Maladaptive Scale for Non-Identified Students

T-Score	Maladaptive Score	Percentile
140	48	100
130	44	100
117	39	100
106	35	100
104	34	100
93	30	99
91	29	99
88	28	99
86	27	99
83	26	99
80	25	98
78	24	98
75	23	98
72	22	97
70	21	96
67	20	95
65	19	93
62	18	92
59	17	89
57	16	85
54	15	81
52	14	76
49	13	69
46	12	59
44	11	46

Computing and Using Standard Scores for Stage Three Measures

Means and Standard Deviations for each subject group by each Stage Two and Three measure are included in Appendix A. Tables for Stage Two Teacher Rating measures in Appendix A are presented for a combined sample of grades 1-6, since the correlations between these scores and grade level were all approximately zero (see *SSBD Technical Manual*). The Appendix A tables for the Stage Three observational measures, however, are all broken down by age group (1-3 versus 4-6) because some of these measures registered slight to moderate mean differences across the elementary age/grade range (e.g., AET, Participation). These tables also include grades 1-6 combined to provide overall group means for each Stage Three measure.

Appendix B contains additional tables for the reader's convenience that allow easy conversion of scores obtained on Stage Three measures to standard scores and percentiles. Tables 53, 54, and 55 have been provided for conversion of AET scores to standard scores and percentiles for Externalizers, Internalizers and Non-identified, Control students, respectively. Tables 56 to 61 in Appendix B are provided for converting PSB code raw scores that are used in determining passing cutoff points for SSBD Stage Three. The tables provided are for Total Negative Scores (used as a cutoff criterion for Externalizers) and for a combined score of Alone plus Parallel Play (used as a passing criterion for Internalizers). The conversion tables are provided for all three subject groups to allow a direct comparison between the T-score and its percentile equivalent for any particular score obtained by a student. This allows a direct comparison of how a score by one student (for example, an Internalizer) normatively compares not only to her or his comparison group (see tables for Internalizers) but also to the non-identified, normative group of students.

In reporting the score obtained on any Stage Two or Stage Three measure used to determine whether a student passes that gate, **it is recommended that the user also report the T-score and**

percentile score equivalents, both for the appropriate comparison group and the non-identified control group. This provides consumers with two comparisons of interest that together anchor the student's behavioral status in terms of its perceived severity or seriousness.

Finally, Appendix C contains tables providing T-score and percentile score equivalents for selected Stage Three measures by sex of student using control, non-identified normative data as a referent. These tables are provided for the reader's convenience in interpreting obtained scores on these measures.

Recommended Additional Measures

The SSBD alone **does not** provide sufficient information to: (a) meet all the informational requirements associated with determining whether a referred student qualifies for certification as Seriously Emotionally Disturbed (SED) or Seriously Behavior Disordered (SBD); (b) provide for diagnoses of complex patterns of problematic social behavior; or (c) provide a complete assessment of a student's social, behavioral and/or academic adjustment. Other measures, in addition to the SSBD, would have to be administered to satisfactorily accomplish these tasks. This section describes some additional domains the SSBD user may wish to assess in this regard and lists some recommended measures within each domain for the reader's consideration.

Students who are highly ranked by their teachers on externalizing or internalizing behavioral dimensions, and whose behavioral levels deviate significantly from the norm in either classroom or playground situations, are more likely to have related problems in such areas as social skill deficits, hyperactivity, poor self-esteem, low academic achievement, and problems with peer relations. Specific assessment measures are described below that address social skills, hyperactivity, adaptive and maladaptive behavior, self-esteem, academic achievement and peer relations via sociometrics.

Social Skills

Both high-ranked externalizing and internalizing students often have serious social skills deficits. As a rule, their overall level of social skills is well below normal; however, externalizers are most likely to be deficient in the social skills that support adult-related forms of adjustment, while internalizers are often severely deficient in those skills supporting peer-related adjustment. Two tech-

nically adequate instruments for assessing social skills have recently become available. Both report national standardization samples and both provide extensive evidence of reliability and validity. Each is described briefly below.

The Walker-McConnell Scale of Social Competence and School Adjustment by Hill M. Walker & Scott McConnell, published by PRO-ED, Austin, TX (1988). This is a 43-item teacher social skills rating scale for use in grades K-6. It yields a total score and three subscale scores entitled **teacher preferred social behavior, peer preferred social behavior** and **school adjustment**. Together, these three subscales provide assessments of the two critical social-behavioral adjustments required of all children in school (i.e. teacher-related and peer-related).

The scale was developed and normed over a 5-year period and is highly sensitive in discriminating socially competent from less socially competent students. The psychometric characteristics of the scale have been extensively investigated. The types of validity currently available on the scale include item, content, concurrent, factorial, discriminant, criterion-related, and construct. Since the scale was published in 1988, evidence in support of its predictive validity has also become available and has been published in the professional literature. Estimates of scale and subscale reliability include test-retest, interrater and internal consistency. The Walker-McConnell scale was designed primarily for use in the screening and identification of elementary students with deficient social skills. It has a national norm sample of 1,812 cases. A secondary version of the scale for use with students in grades 7-12 has recently been published (PRO-ED, 1992).

Social Skills Rating System (SSRS) by Frank Gresham & S. Elliott, published by American Guidance Service, Circle Pines, MN (1990). The SSRS is a well-designed and comprehensive social skills assessment battery. The SSRS is available in three forms. These are: Teacher and Parent forms for evaluating children ages 3 to 18 (preschool through grade 12) and a student self-report form for grades 3 through 12. The SSRS provides a total overall score, as well as subscale scores that measure the following domains:

cooperation, assertion, responsibility, empathy, and self-control. The SSRS also provides a Problem Behaviors Scale for measuring maladaptive behavior that interferes with the acquisition and production of social skills.

The SSRS is a highly content valid and technically adequate assessment battery. The measures and subscales comprising this battery have been extensively researched and are highly sensitive in discriminating socially competent from less competent students. It also provides multirater and multisetting perspectives on the target student's social skills through teacher, parent and self-assessments.

Attention Deficit Disorder and Hyperactivity

High-rated students on the SSBD externalizing behavioral dimension are more likely to be also at risk for Attention Deficit Disorder (ADD), either with or without hyperactivity. By definition, hyperactivity is not an issue with high-ranked, internalizing students; however, internalizers can have attentional problems in the same way that externalizers and normal students have them.

When it is suspected that ADD may be an accompanying disorder in conjunction with an externalizing behavior pattern, then additional measures should be implemented to assess for its presence and nature. Three approaches have been used to assess for hyperactivity. These are (1) rating scales or questionnaires for use by teachers and parents, (2) direct assessment of the hyperactivity construct through mechanical or testing procedures applied directly to the student, and (3) direct observational measures wherein the target student is assessed within laboratory or natural, in vivo settings (i.e., the classroom or playground) (Shaywitz & Shaywitz, 1988). For purposes of ADD screening and identification, the authors recommend primary reliance upon parent and teacher rating scales.

The Connors Parent and Teacher Rating Scale Series (Connors & Barkley, 1985; Ross & Ross, 1982) has been the classic

instrumentation used for the screening, identification and evaluation of ADD. These instruments are the most frequently used, carefully researched and highly respected of the rating scales available for this purpose. There are three forms of the parent scales in current use. These are (1) the original 93-item version (Connors, 1970), (2) the revised 48-item version (Goyette, Connors & Ulrich, 1978), and (3) the 10-item Abbreviated Symptom Questionnaire, also known as the Hyperkinesis Index (Connors, 1972; Shaywitz & Shaywitz, 1988). The original 93-item version has the strongest psychometric characteristics; however, the 48 item revised version has behavioral content that appears to be more directly related to ADD and hyperactivity.

As with the parent version, there are three versions of the Connors Teacher Rating Scale available. These are (1) a 39-item and a revised 28-item version (Connors, 1969; Goyette et al., 1978), (2) the abbreviated 10-item scale, (i.e. the Abbreviated Symptom Questionnaire), and (3) the Iowa Connors Teacher Rating Scale (Loney & Milich, 1982). The original teacher version of the Connors has been used extensively in school settings for the assessment of ADD and has excellent psychometric characteristics. Although developed originally for assessing behavioral effects within drug studies, this scale has been used extensively for screening and identification purposes (Shaywitz & Shaywitz, 1988).

Shaywitz and Shaywitz (1988) argue that the multiple versions of these scales and conflicting results among studies have led to confusion in the professional literature regarding cutoff scores and normative levels. The reader is referred to a critical review of the form and content of the Connors Scales by Ullmann, Sleator and Sprague (1985) for a discussion of these issues. In addition, Shaywitz and Shaywitz (1988) have contributed an outstanding critique of the ADD empirical literature that addresses definitional, classification, conceptual, causal, assessment and intervention issues in a detailed fashion. The reader is referred to this source for a definitive and excellent treatment of these topics.

Adaptive/Maladaptive Behavior

Assessments of the adaptive and maladaptive behavioral repertoires of students targeted SED or SBD referrals have become standard practice when child study teams evaluate them for the purpose of determining certification eligibility. In the authors' view, there are two available rating scales whose content and psychometric characteristics are especially adequate for this purpose, in a technical sense, and that can accurately indicate problematic behavioral domains. These are the Child Behavior Checklist (CBC) (Achenbach & Edelbrock, 1983) and the Revised Behavior Problem Checklist (Quay & Peterson, 1983). The technical adequacy of both these instruments is superb and each has an extensive research literature that documents scale validity and reliability.

The Child Behavior Checklist (CBC) has both parent and teacher versions, a self-report scale, a direct observation form and a preschool checklist for ages 2-3. It is an extremely comprehensive instrument and provides a thorough assessment battery for determining problematic adjustment domains and degree or severity of maladaptive behavior. The CBC, ages 4-16 instrument, provides specific scales by age/grade and sex dimensions. It also assesses externalizing and internalizing behavioral dimensions and is most compatible with the SSBD in this respect. The major criticism of the CBC is the number of items that must be rated. Respondents often object to the amount of time required to complete the various forms of the instrument.

The Revised Behavior Problem Checklist (RBPC), though less comprehensive than the CBC, is a widely used and highly respected instrument. The RBPC consists of 89 items that are rated by parents, teachers or other adult informants. The instrument has four empirically derived, primary level scales (conduct disorder, socialized aggression, attention problems-immaturity, anxiety-withdrawal) and two secondary scales with fewer items (psychotic behavior and motor tension-excess). Norms are avail-

able for male and female students from grades K-12. The RBPC is considered to be a technically excellent instrument.

Self-Esteem

Self-esteem (self-concept, self-image), while long acknowledged as an important concept, has recently emerged as a topic of great interest to professionals concerned with child development. Students with internalizing behavior problems and disorders appear to be especially vulnerable to having problems of low self-esteem.

It is recommended that high-ranked Internalizers' self-esteem be assessed as part of any comprehensive CST evaluation process. Probably the best available measure for assessing this domain is the ***Perceived Competence Scale for Children*** (PCSC) (Harter, 1982), although the Coopersmith Self-Esteem Inventory (Coopersmith, 1967) and the Piers-Harris Self-Concept Scale (Piers, 1969; Piers & Harris, 1964) are better known and more popular instruments. The PCSC is briefly described below.

When first published, the PCSC had four subscales; three were factorially derived skill domains (cognitive, social and physical) and the fourth was a general self-worth subscale. The instrument consisted of a 28 item child self-report form and a parallel 28 item teacher report form (i.e., the teacher rates the child's actual competence in each domain). In 1983, the author reported a revised version of the PCSC that contained six rather than four subscales and is retitled the ***Self-Perception Profile for Children***. The new subscales are labeled as follows: scholastic competence, social acceptance, athletic competence, physical appearance, behavior/conduct and self-worth. The scale has excellent factorial, discriminant and construct validity and can be used with students in grades three through college level. Separate forms are available for ages 8-13, 14 to 18, and 18 and above. Copies of the technical manual and scale can be obtained from the author of the scale. Write to: Susan Harter, HD-09613, Dept. of Psychology, University of Denver, 2040 S. York St., Denver, CO 80208.

Academic Achievement

Although standardized achievement tests have been criticized for their relative insensitivity and reliance upon norm-referenced decision criteria (Marston, 1989), their use is widespread and strongly supported by many consumers. Because of the academic deficits and consistent academic achievement problems of both Externalizers and Internalizers, it is highly recommended that a profile of these students' academic strengths and deficits be developed. For this purpose, the authors recommend either the use of an individual achievement test or curriculum based measurement procedures.

Two excellent and well-developed individual achievement tests are the **Woodcock-Johnson Psycho-Educational Battery - Revised Edition** (Woodcock & Johnson, 1990 available from DLM Teaching Resources) and the **Peabody Individual Achievement Test - Revised Edition** (PIAT) (Dunn & Markwardt, 1989; available from American Guidance Services). Increasingly, some professionals are arguing that **curriculum-based measurement** (CBM) procedures should be used to assess and monitor academic performance as opposed to continued reliance upon standardized tests of achievement (Shinn, 1989). Although curriculum-based measurement is more time-consuming and labor intensive, these measures have the advantages of

- greater sensitivity,
- continuous and repeated measurement, and
- excellent content validity since the academic targets measured are drawn from the existing curriculum.

Both Shinn (1989) and Shapiro (1989) have produced comprehensive and excellent volumes that illustrate the use of curriculum-based measurement procedures (see resources listed under the At-Risk Students heading at the end of this manual).

Peer Relations

Sociometry has a long tradition of use in education and psychology as a valuable tool for assessing children's social competence (Moreno, 1934). Depending upon how it is assessed, *Sociometric Status* can provide a valid and relatively reliable indicator of popularity, peer acceptance and social competence. Research indicates that children who have peer relation problems early in their school careers have an elevated risk for a host of negative developmental outcomes including low achievement, school dropout, adoption of a delinquent life style, bad conduct discharges from the military, interpersonal relationship problems, vocational adjustment problems, and higher hospitalization rates (Parker & Asher, 1987). Clearly, social competence and peer relations play very important roles in children's overall development.

Both Externalizers and Internalizers experience peer neglect and rejection. Internalizers, in particular, seem to be highly vulnerable to peer relation problems. When appropriate and feasible, it is recommended that the sociometric status of referred externalizing and internalizing students be assessed; this is especially recommended for internalizers.

The reader is referred to McConnell and Odom (1986) for a comprehensive treatment of the topic of sociometrics and for information on the appropriate uses of sociometric assessment procedures. The most popular methods of assessing children's sociometric status have involved peer nominations (e.g., preferred work- and play-mates) or peer ratings wherein each student rates all other peers on preference dimensions that generally range from 1 to 5. Smiley and frowny faces are often used with younger children to anchor the end points of these Likert Rating Scales. Asking for negative choices (Who do you not want as work or playmates?) is a controversial subject. Though valuable in providing a thorough and complete picture of sociometric status, there has been considerable concern expressed regarding the psychological and behavioral impact of assessing negative choices and ratings. There is no available empirical evidence that negative nominations and rat-

ings produce deleterious effects (Hops & Lewin, 1984). However, the authors recommend that they not be elicited when using sociometric procedures unless the situation specifically warrants their inclusion.

It should be noted that the above recommended measures are in no way suggested as a requirement for **all** students who pass the SSBD exit criteria for Stages Two and Three. However, they are provided for the reader's convenience and discretion when further evaluating referred students for possible certification, and exposure to interventions and/or specialized placements.

SSBD School Applications

There are three primary school applications of the SSBD procedure. These are

- as an early screening and identification tool,
- as an added source of information for comprehensive evaluation processes conducted by child study teams, and
- as a program evaluation and research tool.

Issues, examples and usage guidelines associated with each of these applications are described below.

Early Screening and Identification

The regular and mass screening of school populations for health-related and sensory problems (hearing and vision deficits, scoliosis, etc.) has a long tradition in the public school system. However, these systematic screening practices do not usually extend to the identification of handicapped children who may be experiencing a variety of academic and social-behavioral adjustment problems. Instead, school psychological services and special education usually rely upon idiosyncratic teacher referrals on a case-by-case basis to identify potentially handicapped children. This is especially true of students who are at risk for behavior disorders and school dropout.

This dependence on teacher referral as the primary avenue for bringing a student to the attention of the school system will identify a majority of the most obviously handicapped students. However, complete reliance upon it results in two undesirable outcomes:

- the underreferral of students who are in need of specialized assistance but whose behavioral characteristics and/or academic performance do not match the teacher's profile of a student who should be referred. This is most likely to occur

with depressed, socially withdrawn or socially isolated, and internalizing students.

- the inappropriate referral of students for evaluation services and/or placement who do not substantially differ in their deficits or behavior problems from non-referred students. These students usually exhibit problems that can and should be dealt with by providing an intervention in the referring setting through teacher assistance and collaborative consultation.

The regular screening of entire school populations, using a structured system such as the SSBD, has the potential to substantially reduce the likelihood of these outcomes. The pool of externalizing and internalizing students identified in SSBD Stage One are likely to be substantially at risk for school-related behavior disorders and/or school dropout. The information obtained on these students in SSBD screening Stages Two and Three and by child study teams will determine their at-risk profiles more precisely and provide some indications as to whether their problems are due primarily to behavior disorders/problems or to other factors (social skills deficits, motivational problems, academic skill deficits, family and home-related factors and so forth).

Students with well-established patterns of externalizing and internalizing behavior are highly vulnerable to long-term developmental problems of a very serious nature. Externalizers are severely at risk for academic failure and are consistently identified as underachievers. They are most likely to experience "rule governed" behavior problems; that is, to resist and/or defy adult-imposed rules. Externalizers are often non-compliant to specific adult commands, consistently fail to meet adult expectations and usually have weak to non-existent acceptance by their regular teachers. Much of their characteristic behavior patterns can be classified as oppositional.

Internalizers are also severely at-risk for academic failure. Their academic at risk profiles consistently equal or slightly exceed those of Externalizers (Horn & Packard, 1985; Walker, Severson, Todis, Block-Pedego, Williams, Barckley, & Haring, 1990). While Inter-

nalizers usually have no difficulty gaining teacher acceptance because of their non-aversive and relatively appropriate patterns of classroom behavior, they have severe social skills deficits and serious peer relations problems. Internalizers are very likely to experience peer neglect and/or rejection. Internalizers are consistently rated by their teachers as having moderate to severe deficits in their peer-related social skills and they receive very few choices as preferred work- or play-mates in sociometric assessments of their popularity and perceived social competence.

Todis, Severson and Walker (1990) developed prototypical case study profiles of elementary-aged students with characteristic externalizing and internalizing behavior disorders/problems based upon numerous cases identified by school applications of the SSBD procedure. Though the case illustrative case profiles do not describe actual specific cases, they represent accurately the characteristic behavior patterns of these students and typical school responses to the behavior problems they present. These case studies follow.

Case Study of an Externalizing Student: Teddy C.

Teddy C. is a 9-year-old student in Mrs. Hooper's third grade class at Buena Vista Grade School. He was nominated by his teacher as the top-ranked externalizer in her classroom. His second grade brother Danny was also the top-ranked externalizer in his class, and their sister Mindy was the top-ranked internalizer in her first grade class. School personnel have had frequent contact with Teddy's mother because of the boys' disruptive behavior at school and have reported incidents of suspected abuse of the children to the state child welfare agency. According to the school counselor, Teddy's mother lives with a "violent, disrespectful man who is not the father of the children." The children seem to suffer from a lack of supervision at home. They often are left to get themselves ready for school, frequently miss the bus and arrive late.

Teddy scores below the 10th percentile in reading and language arts on a standardized achievement test and at about the 25th percentile in math. These low scores and difficulty with class work resulted in a referral for academic evaluation at the beginning of second grade, on the basis of which he was identified as learning disabled and made eligible for special education services. Teddy's resource room teacher, who is helping him catch up in basic skills, reports that he works hard, but his poor attendance and tardiness are preventing him from improving as much as he could.

Mrs. Hooper indicated on the Stage Two Critical Events Index that Teddy engages in disruptive behaviors such as physically assaulting other children, ignoring her warnings and attempts to discipline him, having tantrums, making lewd or obscene gestures, and swearing. He continually disrupts the class with his non-compliance and refusal to follow classroom rules, and when Mrs. Hooper tries to get him to stop inappropriate activities and attend to school work, he shouts and swears at her and sometimes throws things. He further demonstrates to his classmates Mrs. Hooper's lack of control over his behavior by leaving the classroom at will during instructional time and wandering the halls.

Rather than gaining the admiration of his classmates, Teddy's defiant behavior alienates his peers. He exacerbates the situation by being manipulative and coercive with other children on the playground, attacking them physically and verbally when he does not get his way. His younger brother, Danny, has even more difficulty interacting with peers, and Teddy frequently tries to intercede on his behalf, resulting in fights with second graders as well as his own third grade classmates. The other children have learned that the most effective protection against this kind of abuse is to stay away from Teddy, so during recess he spends a great deal of time in solitary play or just roaming around the playground.

Fights on the playground result in Teddy being sent to the principal's office, sometimes as often as twice a week. During the first conferences, the principal talked with Teddy about his behavior and sent notes home to his mother. When this proved ineffective, and when Teddy began to be rude and defiant with the principal, Teddy was suspended from school for several days. His behavior on the school bus has also resulted in notes home and in suspensions, which meant that his mother had to arrange other transportation to school for him. Such embarrassing inconveniences further strain the difficult situation in Teddy's home.

Teddy's teachers, principal, and school counselor are, at this point, still able to look beyond his disruptive and offensive behavior to try to discern the underlying causes. They recognize that he suffers from low self-esteem, immaturity, and deficient social skills and are attempting to address these problems. In an effort to bring Teddy's behavior under control so he could begin to benefit from classroom instruction, school personnel took the unusual action of transferring Teddy to another teacher's classroom at the beginning of the second semester. It was hoped that in Mr. Pringle's combination second and third grade class Teddy would encounter behavior management techniques which would convince him to give up his challenges to teacher authority and make a fresh start with a new group of children. Teddy's mother supported the move because it meant he would no longer have recess at the same time as his younger brother, giving Danny a chance to try to work out his own social problems with the aid of a behavior management program instituted by the school staff.

Case Study of an Internalizing Student: Susan L.

Susan L. is also 9 years old, but is only in second grade at Elmwood School. Her immaturity, poor attendance, inattention to task, and low academic performance convinced her teacher and other school personnel that she would benefit by repeating first grade. A year later, these problems persisted, however. She scores below the 10th percentile on standardized achievement tests; she missed 25 days of school during the year she participated in this study, and was tardy 15 times. When she does attend school, she focusses on academic tasks during only about half of the instructional time. She has been referred for academic evaluation and identified as learning disabled. However, her poor attendance also interferes with her progress in basic skills in the resource room.

Susan's teacher, Mrs. Holbrook, is at least as concerned about Susan's social behaviors as she is about her academic problems. Susan is painfully shy and appears to be very sad or depressed. She cries suddenly and often for no apparent reason and complains of a variety of ailments, including severe headaches and stomachaches. She seems to be unaware of how to interact with other children in the classroom. She seldom initiates contact with them, even when assigned to work in a group on an academic task. Furthermore, she frequently responds inappropriately when other children try to interact with her. Her peers find her strange and avoid or make fun of her. Susan compensates by demanding more than her share of Mrs. Holbrook's attention, asking for help on every assignment and seizing every opportunity to hug her and hang on her. These behaviors are not common to the other children in the classroom and tend to set Susan apart even more from her peers.

Not surprisingly, Susan is often isolated from other children on the playground as well. She is either alone or involved in solitary play in proximity to other children about 40% of the time. When she does attempt to interact with other children, it is usually as an observer; she seldom speaks with them. About one-fourth of each recess is spent trying to engage the attention of one of the playground supervisors. Susan hugs them, teases them and trails behind them as they circulate around the huge playground. Although they try to encourage her to play with other children, Susan seems to prefer this limited adult contact. Whenever possible, Susan sneaks into the school for the last half of the recess period and goes to Mrs. Holbrook's room. If Mrs. Holbrook is not there, Susan quietly amuses herself by straightening books on shelves or cleaning her desk. If the teacher is in the classroom, she tends to let Susan stay, knowing how difficult it is for her to interact with other children.

Susan's parents were contacted to obtain consent to observe her for a follow-up study. They agreed to let Susan be observed in the classroom and on the playground, but it proved difficult to complete these observations since, as a third grader, Susan's attendance was even more sporadic than in second grade. She missed 37 complete days and was frequently more than an hour late for school when she did attend. On the playground, her time spent alone had soared to 80% of the recess period. Observers reported that she simply stood by the door and watched other children from a distance.

In spite of the fact that Susan's achievement test scores have not improved, as a third grader she is no longer receiving instruction in the resource room. She does go to Chapter I reading and math classes, however. Apparently her behavior and social problems are not of the type that warrant a referral for further evaluation, although all school personnel contacted expressed concern about her poor attendance.

Internalizers and Externalizers who fit these case-study profiles have substantially elevated risk for negative developmental outcomes in adolescence and adulthood that can seriously affect their long term adjustment and quality of life (Kazdin, 1985; Kazdin & Frame, 1983; Parker & Asher, 1987). These outcomes include the following:

- low self-esteem,
- low achievement and school failure,
- school dropout,
- depression, social isolation and weak social support networks,
- adoption of a delinquent life style in adolescence,
- bad conduct discharges from the military,
- vocational adjustment problems,
- appearance on community psychiatric registers in adulthood,
- relationship problems,
- higher hospitalization rates, and
- higher mortality rates.

It should be noted that Externalizers and Internalizers have differential risk profiles for the above outcomes (e.g., Externalizers are more at risk for delinquency and bad conduct discharges while Internalizers are more at-risk for low self-esteem and depression). These are extremely serious potential outcomes and systematic prevention efforts should be mounted to prevent their occurrence whenever possible. There is ample evidence from education, psychology, medicine and other fields that early intervention is our best hope of preventing such long-term, negative developmental outcomes. Without systematic interventions applied early in a student's school career, it is unlikely that his or her at-risk status for these negative outcomes will continue to escalate. The SSBD makes it possible to address this problem by:

- providing teachers with uniform behavioral standards for identifying at risk students.
- providing all students with an equal opportunity to be assessed and identified in relation to their at-risk status for school dropout and for Externalizing versus Internalizing behavior disorders/problems.
- identifying initial pools of these students shortly after they enter the school setting (e.g., at the beginning of grade 1).
- assessing and evaluating a student's at-risk status in relation to school dropout and a range of behavior disorders (including specific behavior problems) through SSBD Stage Two and Three measures and through Archival School Record searches using the *School Archival Record Search* (SARS) instrument (Walker, Block, Pedego, Todis & Severson, 1991).
- systematically monitoring the school adjustment and behavioral status of students within and across school years.
- providing school professionals with an improved basis for designing interventions and for matching students to available interventions and existing school-based services.

It is highly recommended that regular screening efforts, using the SSBD procedure, be conducted in grades 1 through 6 twice during the school year. Ideally, the first regular screening should occur near the end of the second month of school (e.g., October) after teachers have had adequate time to develop knowledge of the behavioral characteristics of students in their classes. The second screening should occur 3 to 4 months later (in February or in March) in order to

- identify students who may have been missed in the first screening,
- screen and assess students new to the school or class, and
- identify any students whose behavior patterns may have changed significantly.

There are a variety of professionals working in the school setting who can coordinate the SSBD screening procedure either singly or cooperatively. These include teacher assistance teams, school counselors, special educators, school psychologists, social workers,

and the school principal. Those students who are identified at the end of screening Stage Two and/or Three are then considered for the following options:

- referral to a child study team for more comprehensive evaluation and assessment.
- referral outside of the school building or to an external agency.
- assignment to the school-based teacher assistance team for attention and remediation.
- assignment to a teacher consultant as a target of a consultant-teacher or consultant designed prereferral intervention (e.g., counselling, social skills training, individualized behavioral or academic interventions in the classroom).
- assignment to an existing school-based service program (e.g. Chapter 1, resource room, at-risk program, etc.)

It is highly recommended that all students who pass the exit criteria for SSBD screening Stage Three be referred to a child study team for further evaluation and possible certification as handicapped.

The SSBD procedure, when used as an early screening and identification tool, is designed to represent "best practices" in the area of serving at-risk and those with behavior disorders and problems. In the authors' view, this procedure is highly cost-effective when the gains associated with its use are considered. It will substantially improve the overall quality of teacher referrals in the at-risk/behavior disorders domain and allow the students who need them to access essential school- or district-based services.

The SSBD as an Added Information Source for the CST Evaluation Process

The SSBD was designed to be complementary to the child study team evaluation process. Results of the SSBD Stage One, Two and Three screening procedures generate considerable information that can supplement child study team evaluation processes and, in some cases, provide adequate data for making some of the decisions relating to the identification process as listed below. Child study team tasks and decision processes for which the SSBD can contribute significant information are described below.

Evaluate the appropriateness and accuracy of teacher referrals.

The SSBD provides criteria and procedures for evaluating the accuracy and timeliness of teacher referrals to child study teams. The SSBD can be very useful in reducing both false positives and false negatives associated with the referral process by providing a thorough behavioral analysis of the referral using multimethod, multiagent and multisetting assessment procedures.

Identify the primary presenting problems in referrals from teachers.

The SSBD automatically characterizes the referred student's behavior problems as being either of an externalizing or internalizing nature. This characterization structures additional child study team assessments and intervention planning procedures in very useful ways. In addition, the SSBD Stage Two and Three assessment procedures provide detailed information on the specific content of the referred student's behavior patterns in both classroom and playground settings.

Determine whether the referred student is emotionally disturbed or socially maladjusted.

Although this is an unfortunate requirement of the SED component of P.L.94-142, it is an assessment task that child study teams are required to perform in order to certify a referred student as behavior disordered. In the authors' view, the SSBD Stage One classification of the referred student's behavior problems as either primarily externalizing or internalizing, and the detailed information produced in SSBD Stages Two and Three, provide useful information to school personnel charged with making this difficult and often nebulous decision. It should be noted that the SSBD accurately identifies students who are handicapped by their behavior patterns. Determining whether such students are also emotionally disturbed often poses a clinical and diagnostic problem that cannot be resolved adequately using even the most complex diagnostic procedures available.

Several excellent treatments of this problem have been reported in the professional literature. For example, the journal of *Behavioral Disorders* published a special issue on the topic of social maladjustment (see Vol. 15, No. 3, May 1990). The papers by Center, Weinberg and Weinberg in this issue deal with the problems inherent in distinguishing between emotional disturbance and social maladjustment. Finally, Nelson & Rutherford (1990) have contributed an excellent chapter on socially maladjusted students and their accommodation by the public schools.

Obtain assessments of the student's adaptive/maladaptive behavior and formally observe in the referral setting.

The SSBD provides highly reliable and very sensitive teacher checklist and rating instruments in screening Stage Two that characterize teacher perceptions of the referred student's behavior pattern. The national standardization sample on these instruments consists of approximately 4500 cases. The SSBD Stage Three AET and PSB observation codes provide structured, easy-to-use observational recording procedures that meet this require-

ment and yield relevant information on both teacher-related and peer-related adjustment status. These codes each have a national norm sample of approximately 1300 cases for use in evaluating student performance. The AET and PSB observation procedures can be used whenever it is deemed appropriate or necessary to conduct a behavioral observation in an elementary grade setting.

Collect information for use in intervention planning.

The SSBD Stage One, Two and Three assessment procedures generate substantial information on the referred student's behavior in multiple settings and from multiple social agents that can be very useful in designing school-based interventions. For example, specific behavioral deficits and behavioral excesses can be identified for an individual student by inspecting the Stage Two adaptive and maladaptive rating scales and comparing teacher assigned item ratings to the appropriate norms for the target student(s) (see Tables 3, 4, and 5). Similarly, AET and PSB code category levels can be similarly computed and compared to the appropriate normative levels (see Appendix B & C). The resulting behavioral profiles from these assessments provide a clear picture of specific behavioral deficits and excesses and have direct implications for the design of remedial interventions. As such, they enhance the treatment validity of school-based interventions.

Review the referred student's history.

The requirement of P.L. 94-142 for a child study team to assess the student's school history is perhaps the least formally addressed mandated component of the overall evaluation process. The School Archival Records Search (SARS) procedure (Walker, Block-Pedego, Todis, Severson, 1991) provides a structured, cost-effective means of inspecting and quantifying a student's school history through the systematic review and coding of school records. The SARS forms and manual are available from Sopris West, Inc.

The SARS provides scoring criteria and instructions for coding 10 variables commonly found in archival school records. These are

- standardized achievement test information,
- behavioral referrals (within school),
- academic referrals (within school),
- current IEP,
- placement in a non-LRE setting,
- receiving Chapter I services,
- referrals out of school,
- negative narrative comments,
- school disciplinary contacts, and
- speech and language referrals within school.

The interrater reliability as well as the factorial and discriminant validity of the SARS have been extensively investigated by the authors and their colleagues. All 10 SARS variables powerfully discriminate Externalizers, Internalizers, and Normal Control student from each other. It is highly recommended that a systematic SARS record search be conducted for each student who meets SSBD Stage Three exit criteria and who is referred to a child study team for further evaluation.

Information relating to the above child study team tasks and decision processes is provided automatically for each student who passes SSBD Stage Two and Three exit criteria. In the authors' view, this information is highly cost-effective, content-valid, and of considerable value to the overall child study team process. Please refer to the SARS Manual for more complete information (Sopris West, Inc., 1991).

The SSBD as a Program Evaluation and Research Tool

The SSBD has a wide-ranging potential for program evaluation and research uses in the school setting. Teacher rankings on externalizing and internalizing behavioral dimensions, recorded at regular intervals, could provide important information on the behavioral status of students who are receiving specialized interventions or services. The rank order position of target student(s) on these dimensions could provide a non-intrusive but indirect measure of behavioral gains that may be attributable to specific interventions.

Teacher rankings of this type would be an excellent vehicle for monitoring the degree or extent of student adjustment within and across school years. As such, they would be an ideal vehicle for inclusion in longitudinal studies of school adjustment. They would also make it possible to study the interaction between teacher perceptions and actual behavioral status across a range of school settings.

The SSBD Stage Two and Three measures have excellent psychometric characteristics and extensive normative data bases. They are user friendly instruments with proven sensitivity and would be useful for investigating research questions relating to the school adjustment of school-age populations in the 1-6 grade range.

Finally, the SSBD has been used by some districts as a decision vehicle for allocating district resources to buildings based on the numbers of students who meet or exceed SSBD Stage Two and Three cutoff scores. Used in this manner, the SSBD provides a more objective determination of resource needs based upon behavioral criteria. This is in contrast to the more typically used idiosyncratic approaches of matching available resources to building level demands as they are projected.

Recommendations and Resources for Designing Interventions for SSBD-Identified Students

Recommendations and resources for developing school-based interventions for use in remediating the social-behavioral adjustment problems of target students identified by the SSBD procedure are described in this section. Recommendations and resources are presented that are designed to (1) improve adaptive levels of classroom behavior and reduce maladaptive behavioral levels, (2) to increase conceptual and behavioral mastery of essential social skills, and (3) to reduce the likelihood of identified students dropping out of school. Generic class-wide intervention procedures and resources are presented first that are designed to reduce the likelihood of teacher behavioral referrals and to improve the teacher's ability to manage the classroom environment effectively. Recommended intervention procedures and resources are then described that are designed for individual application and are referenced to the characteristic behavioral profiles of externalizing, internalizing and at-risk students, respectively.

Generic Class-wide Intervention Procedures

School professionals and other experts are increasingly recommending the implementation of prereferral intervention procedures in regular classroom settings that emphasize (a) prevention and early intervention, (b) teacher collaboration (among teachers and between teachers and consultants), (c) effective teaching practices, and (d) the formation and operation of teacher assistance teams (Phillips and McCullough, 1990). The widespread adoption of these innovations has the potential to produce higher quality

instruction, more effective classroom management and a wider range of service delivery options for students at risk for school failure and dropout. These innovations are ideally suited for responding to the social, behavioral and academic needs of at risk students in general and of externalizing and internalizing students who do not pass exit criteria for either SSBD Stage Two or Three.

In particular, the reader is urged to consult the literature on behavioral consultation (Idol & West, 1987; West & Idol, 1987), teacher assistance teams (Chalfant, Pysh & Moultrie, 1979; Chalfant & Pysh, 1989; Hayek, 1987), effective teaching and schooling practices (Joyce, Hersh & McKibbin, 1983) and prereferral interventions (Graden, Casey & Christenson, 1985) in designing generic intervention procedures to achieve the above goals and to respond effectively to those students who do not meet SSBD exit criteria. These service delivery options are interrelated; however, they are also essential components of an effective and comprehensive service delivery system. They offer the following positive advantages in responding to the learning and behavioral needs of students who are ranked high on the SSBD externalizing and internalizing dimensions but who do not qualify for referral to a child study team:

- They focus remediation efforts on the analysis and solution of adjustment problems the child is experiencing within the regular classroom setting.
- Attempts are made to solve the problem(s) before resorting to child study team referrals.
- They maintain problem ownership at the teacher and building level without transferring it to special education or central school district services.
- Teachers are provided a collegial forum for consulting with each other in the solution of classroom problems, and learn to value and utilize each other's expertise.
- Teachers and other school personnel, as a rule, value the teacher assistance team process and assign high consumer satisfaction ratings to their participation in them.

There are two available classroom-based intervention programs that are suitable for implementation on a class-wide basis and that are compatible with the above service delivery options. Programs of this type are sometimes referred to as universal interventions in that all students in a classroom are exposed to them. The two programs, Project RIDE and the PASS program, are highly recommended and are of proven effectiveness. Each is described below for the reader's convenience. Both programs were designed (a) for use in elementary classrooms, (b) for remediating both social-behavioral and academically related deficits, and (c) for implementation and primary control by the regular classroom teacher with consultant assistance provided as required.

Project RIDE (Responding to Individual Differences in Education) was developed by the Great Falls, Montana Public Schools, (1987), and is published by Sopris West, Inc. Project RIDE is a staff development program designed to assist teachers in accommodating individual student differences as close as possible to the regular classroom setting. It is a school building-based support system, which operates on the premise that teachers, when coupled with proven classroom practices and modern technology, can become their own best resources. RIDE is also viewed as a collaborative effort and bridge between regular and special education. The program provides the following outcomes:

- a highly effective prereferral intervention option,
- a mainstreaming and social integration option for those returning from special programs,
- a resource for solving general classroom problems of both a behavioral and academic nature,
- a process for accommodating those students who neither qualify for pull-out programs nor can function successfully in the regular classroom.

RIDE provides three alternatives for dealing with classroom problems. These are (1) to modify or refine current classroom practices based on effective school research, (2) to match a specific intervention tactic from a computer tactics bank and/or video library with

the problem behavior, or (3) to refer the student and problem(s) directly to a school-wide teacher assistance team. RIDE represents an innovative and highly effective packaging of "best practices" for responding to the learning and behavior problems that are most frequently encountered by teachers. Perhaps its most outstanding feature is the matching of intervention tactics, via computer and a video library, with specific behavior problems.

The developers of RIDE identified the 20 most common problems that teachers indicated as disrupting the classroom (e.g., talk outs, fighting, bullying others, lying, cheating, pouting, non-compliance, etc.) and the 20 most common problems that interfere with academic achievement and completion of assigned tasks (e.g. paying attention, following written directions, low self-esteem, transitions, tardiness, completing school work, etc.). A panel of experts then identified 260 proven practices that addressed these problems, described them in teacher language, and developed computer software for making them easily accessible and a video library to illustrate their effective application. In the authors' view, RIDE is **the** most impressive effort to date in making best practice techniques available to classroom teachers in a highly consumable form. It is ideally suited for facilitating teacher assistance teams, mounting effective prereferral interventions and defining social-behavioral targets for focussing behavioral consultation efforts and planning interventions.

The RIDE program, available in elementary and secondary versions, has been widely adopted by school districts across the country since its publication in 1987. In the authors view, RIDE exemplifies the type of intervention that advocates of the *Regular Education Initiative* view as desirable for accommodating a larger number of handicapped and at-risk students within the regular classroom.

PASS. (Program for Academic Survival Skills), Charles Greenwood, Hyman Hops and Hill M. Walker (1988), Educational Achievement Systems, Seattle, WA. The PASS program is one of the four behavior management packages developed as part of the University of Oregon research and development effort in behavior

disorders from 1971-79 (see Walker, Hops & Greenwood, 1984). PASS is probably the most extensively researched of the four CORBEH programs (Center at Oregon for Research in the Behavioral Education of the Handicapped). PASS is a group behavior management program that is applied to the behavioral level of the entire classroom. It has a positive impact on the level of appropriate behavior and academic engagement of the entire classroom but has the most dramatic impact on those students in the class whose behavioral levels are lowest (e.g., handicapped, disadvantaged and at-risk students). PASS utilizes a behavioral consultation model, and complete program implementation can be achieved in as little as five weeks. In collaboration with a consultant, the classroom teacher implements the five phases of the PASS program: **preliminary assessment, teacher baseline, full program, program fade-out and program maintenance**. The PASS program is applied in reading and math periods daily but can be extended to other periods as necessary. The teacher initially uses a clock light mechanism to record the academic engagement level of the whole class; classroom rules are then developed, introduced, reviewed and posted. A group reinforcement system is applied to the classroom rules and clock monitoring procedure.

As a rule, the academic engagement level for the entire classroom quickly improves to 80% plus and remains there during the remainder of the program. (**NOTE:** The academic engagement levels of typical regular classrooms generally range between 65 and 80%; poorly managed classrooms or those with difficult students often fall well below 50%). The PASS program is highly effective in preventing behavior problems in the classroom and dramatically improves the overall academic engagement level for the whole class. The program is very popular with both teachers and students who are exposed to it. PASS is available through Educational Achievement Systems, P.O. Box 7449, Seattle, WA 33484-7449. PASS along with the other three CORBEH behavior management packages was recently selected as one of 18 exemplary intervention programs to be nationally disseminated for the purpose of facilitating educator's attempts at mainstreaming and social integration (Alberg, 1989).

Both the RIDE and PASS programs can have a direct influence in improving the school adjustment of individual students and also improve substantially the overall behavioral level of the entire class. Those students who are at risk for school dropout and behavior disorders are likely to derive the most benefit(s) from the programs' implementation. Teacher classroom management skills are also improved through exposure to RIDE and PASS.

Finally, listed below are some commercially available but relatively inexpensive intervention programs and resource materials for use by school professionals. They are highly appropriate in addressing many of behavior problems of students identified by the SSBD screening procedure list.

Administrative intervention: A discipline handbook for effective administrators. (1990). Sopris West, 1140 Boston Avenue, Longmont, CO 80501.

Alternatives to Punishment. (1986). Irvington Publishers, Inc., 740 Broadway at Astor Place, New York, NY 10003.

ASSIST: Affective Social Skills: Instructional Strategies and Techniques. (1990). Sopris West, Inc., 1140 Boston Ave., Longmont, CO 80501.

This six-book series includes Helping Kids Handle Anger, Teaching Cooperation Skills, Building Self-Esteem in the Classroom, Teaching Friendship Skills, Teaching About Sexual Abuse, and Creating a Caring Classroom. ASSIST incorporates concepts and procedures from social learning theory, from behavioristic and humanistic psychology and from proven educational practice.

Discipline in the Secondary Classroom. Center for Applied Research in Education, West Nyack, NY 10995.

Educational Programs That Work. (18th edition, 1992).

Sopris West, Inc., 1140 Boston Ave., Longmont, CO 80501.

EPTW describes more than 300 exemplary programs that were developed and proven effective by practitioners. The programs described span a broad range of educational areas and cover all age levels. Included in each description is target audience, program components, services available, cost, and contact person.

How to Teach Series. (1980-82). Pre-Ed, 8700 Schoal Creek, Austin, TX 78758.

Provides a series of 16 booklets on a variety of topics such as planning for generalization, using planned ignoring, negotiating a behavioral contract, motivation, selecting reinforcers, positive practice.

Interventions for Achievement and Behavior Problems.

(1991). National Association of School Psychologists, 8455 Colesville Road #1000, Silver Spring, MD 20910.

Contains 34 chapters that emphasize the design, implementation and evaluation of interventions for achievement and behavior problems.

Instructional Methods for Adolescents With Learning and Behavior Problems. (1990). Allyn and Bacon, 160 Gould Street, Needham Heights, MA 02194.

Managing your classroom: Instant idea book for elementary teachers. (1983). Frank Schaffer Publications, Inc., 1028 Via Mirable, Palos Verdes Estates, CA 90274.

Usually available at school supply stores.

SOS! Help for parents: A practical guide for handling common everyday behavior problems. (1985). Parents Press, P.O. Box 2180, Bowling Green, KY 42101.

Specific Intervention Manuals. Hawthorne Educational Services, P.O. Box 7570 Columbia, MO 65205.

Individual manuals on select topics; indicates specific presenting problems, then typically provides 20+ possible approaches to resolution. The following topics are available:

- The At-Risk Student in Our Schools
- The Parent's Guide: Solutions to Today's Most Common Behavior Problems in the Home
- The Teacher's Guide to Behavioral Interventions
- Pre-Referral Intervention Manual
- The Gifted Classroom Intervention Manual
- The Attention Deficit Disorders Intervention Manual
- The Adaptive Behavior Intervention Manual
- The Learning Disability Intervention Manual

Individual Intervention Procedures

Recommendations for Externalizing Students

As a first step, externalizing students usually require interventions designed to reduce their excessive levels of disruptive, inappropriate school behavior. In the classroom, they tend to violate classroom rules, disobey the teacher, ignore teacher warnings and reprimands, disturb others and leave schoolwork unfinished. On the playground, they have much higher than normal rates of negative social interactions with peers; their overall levels of negative social behavior are substantially above normal and they participate in and frequently dominate organized games and activities at recess. Because of their aversive social behavior, externalizers usually spend more time alone than normal in free play settings, largely because peers tend to avoid contact with them whenever possible.

RECOMMENDATIONS. The following recommendations are offered for the reader's consideration in remediating the behavior problems of Externalizers in grades 1-6.

- As a general rule, consider designing behavioral interventions that contain procedures for simultaneously reducing maladaptive behavior (time out, response cost, loss of privileges) and increasing adaptive behavior (social praise, positive reinforcement). For students with well-established externalizing behavior problems and disorders, it is unlikely that positive intervention procedures alone will be sufficient to produce adequate overall changes in behavior.
- Do not attempt to produce valid changes in the inappropriate or maladaptive behavior of externalizers, via systematic social skills training. This is especially true if their behavior patterns are primarily oppositional or non-compliant in nature. It is essential that powerful behavior change procedures are implemented **first** to reduce maladaptive behavioral levels to within normal limits followed by social skills training to improve social competence. Social skills

training is primarily an instructional intervention that is **not sufficient** to change externalizing behavior patterns.

- Consider establishing both home and school reward systems to provide adequate support for the target student's attempts at changing his/her behavior. The joint monitoring and remediation of school-related behavior problems by teachers and parents can be extremely effective when parental cooperation can be secured.
- Implement the school intervention procedures in those target settings where the student's behavior is most problematic initially and then extend it later to those settings to which generalization of intervention effects is desired. Do not expect that transfer of intervention effects will occur automatically or naturally. The intervention procedures should be extended to those settings where such effects are expected or desired.
- Gradually fade out the intervention procedures as the target student's behavior warrants. Continue to monitor and implement covert or private reinforcement systems with the target student over the long term to maintain intervention gains. Use social praise and natural contingencies to further support the durability of such behavioral gains.
- Develop a debriefing procedure to assist the target student in developing and rehearsing acceptable alternative responses to particularly problematic or difficult situations involving teachers and/or peers. Use monitoring, coaching and reinforcement/contractual procedures to assist the student in applying these alternatives in appropriate situations.
- Consider establishing group dependent contingencies to improve the peer popularity and social acceptance of externalizing students where appropriate. A common application of this procedure is where the target student earns activity rewards to be shared by the peer group, or members thereof, who assist in achieving the reward criterion. However, careful monitoring of such systems is essential to deal with any undue pressures that might develop from the application of these contingencies.

RESOURCES The resources recommended in this section for use with externalizing students are divided into those for remediating behavioral excesses and those for improving social skills.

For behavioral excesses, there are four texts and two consultant-based intervention programs that are excellent resources for remediating the problems of externalizing students. Each is described briefly below.

Remediating Behavioral Excesses

Treatment of Antisocial Behavior, Alan Kazdin (1985), Dorsey Press, Inc., Homewood, Illinois. This is a classic and very comprehensive volume on the causes and treatment of antisocial behavior in children and adolescents. It reviews available treatment approaches in considerable detail and evaluates their effectiveness. This book contains a number of useful recommendations on how to remediate this form of maladaptive behavior.

Teaching Behaviorally Disordered Students: Preferred Practices, Daniel Morgan and William Jenson (1988), Charles Merrill, Inc. Columbus, Ohio. This is a superb and very comprehensive text on the instruction and management of students with behavior disorders in the school setting. In the authors' view, it is one of the finest texts available dealing with the remediation of school-related behavior disorders. It contains a clear presentation and illustration of best practices in both regular and self-contained settings for this population and is highly readable. The expertise of the authors of this text in the field of behavior disorders is clearly apparent in their treatment of this topic.

Strategies for Managing Behavior Problems in the Classroom, Mary Margaret Kerr and Michael Nelson (1983), Charles Merrill, Columbus, Ohio. This text has set the standard for excellence in the area of behavior disorders since its publication (a revised version of this text was recently published). As with the Morgan and Jenson text, the material is very comprehensive and extremely well presented. It covers the full gamut of behavior disorders issues and content in the elementary grade range. At the same time, it is very practical and contains a number of excellent behavioral intervention strategies. It is highly recommended as a resource for use in designing behavioral interventions for externalizing behavior patterns.

The Solution Book: A Guide to Classroom Discipline, Randall Sprick (1981), Science Research Associates, Chicago, Illinois. This book has been a preferred resource for teachers, counselors, special educators and school psychologists in dealing with behavior problems of students since its publication. It identifies the most commonly encountered behavior problems in school settings and offers the user a series of well-thought-out solutions to them. The book is highly effective, user friendly and based upon the very best practices available. Randall Sprick is widely acknowledged as a professional in the area of classroom behavioral interventions.

CLASS: Contingencies for Learning Academic and Social Skills, Hyman Hops, Hill Walker and Charles Greenwood (1988), Educational Achievement Systems, Inc., Seattle, WA. The CLASS program is a self-contained behavioral intervention package for use with conduct disordered, acting out students in grades kindergarten through 3 or 4. CLASS is designed for use in regular classroom settings via a behavioral consultant delivery format; however, it has been adapted for implementation by the classroom teacher alone and can also be implemented within resource and self-contained settings. CLASS is one of four such behavioral intervention packages developed through an 8-year research and development effort at the University of Oregon by the senior author and his colleagues (Walker, Hops & Greenwood, 1984). The CLASS program requires approximately 30 school days for implementation and consists of social praise from adults, a response cost point system, home and school rewards, time out and suspension, and group contingencies at school and individual contingencies at home. The program is highly effective, has been extensively researched and field tested and is widely used. It has been estimated by some professionals that the number of BD referrals from regular classes could be reduced by up to 90% if the CLASS program were used as a preventive, prereferral measure within regular classrooms.

RECESS: Reprogramming Environmental Contingencies for Effective Social Skills, Hill M. Walker, Hyman Hops and Charles Greenwood (1988), Educational Achievement Systems, Inc., Seat-

tle, WA. The RECESS program was also developed, along with CLASS, as part of the University of Oregon research and development effort in school-related behavior disorders. RECESS is designed for use primarily in free play settings with highly aggressive, antisocial children in grades kindergarten through 3 or 4. However, the program does contain a classroom extension component for those students who also exhibit aggressive behavior in the classroom and/or violate teacher imposed classroom rules. Components of the RECESS program are similar to those of CLASS and include social praise, response cost, home and school rewards, group and individual contingencies, and most importantly, systematic training in key social process skills focusing on cooperative behavior for the target student and peers. RECESS is a very powerful program for remediating aggressive social behavior directed toward peers. Together, CLASS and RECESS can accommodate students who have both oppositional and aggressive behavior patterns.

Social Skills Training

Systematic social skills training is increasingly recognized as an important adjunct intervention for improving the behavioral social adjustment of the broad range of handicapped and at-risk students in school settings. Improved social skills can be instrumental in accounting for a student's classroom adjustment, peer relations and the recruitment of adequate social support networks. Social skills assessment and training, in the authors' view, are of equal importance in the prevention and remediation of externalizing and internalizing behavior problems and school dropout.

The reader is referred to three published articles that review the teaching of social skills and curricula packages appropriate for same. Walker (1988) provides guidelines for the direct instruction of social skills among elementary and adolescent school populations. Elksnin (1989) reviews available social skills curricula packages and discusses program evaluation guidelines. Carter and Sugai (1989) provide a social skills curriculum analysis that incorporates a series of programming guidelines and useful criteria for analyzing social skills curricula. Before attempting systematic

social skills instruction, it is highly recommended that the material contained in these articles or similar ones be consulted. A list of recommended curricula for use with elementary grade-level students is provided below.

Jackson J., Jackson D. and Monroe C., (1983), *Getting Along With Others*. Champaign, Illinois. Research Press, Inc.

McGinnis, E. and Goldstein, A., (1984), *Skillstreaming the Elementary School Child*. Champaign, Illinois. Research Press, Inc.

Stephens, T. (1978). *Social Skills in the Classroom* Columbus, Ohio. Cedar Press.

Waksman, S. and Messmer, C. (1985). *Assertive Behavior: A Program for Teaching Social Skills to Children and Adolescents*. Austin, Texas, PRO-ED, Inc.

Walker, H., McConnell, S., Holmes, D., Todis, B., Walker, J., and Golden, N., (1983), *The Walker Social Skills Curriculum: The ACCEPTS Program*. Austin, Texas, PRO-ED, Inc.

Recommendations for Internalizing Students

Internalizing students, like Externalizers, tend to have very serious academic deficits and low achievement levels. Internalizer's maladaptive behavior levels, as indicated by teacher ratings and direct observations, are usually well within the normal range. They tend to have lower levels of academic engagement and slightly lower rates of adaptive behavior on teacher rating scales than do normal comparison students. Internalizers, however, have extremely serious social skills deficits and experience frequent neglect and/or rejection from their peers. They spend large amounts of time alone in free play settings and rarely participate in peer-controlled activities and games. Internalizers often initiate and respond to social bids by others in an awkward, ineffective fashion, thus further isolating them from peer social networks.

RECOMMENDATIONS The following recommendations are offered for the reader's consideration in remediating the behavior problems of Internalizers in grades 1-6.

- The focus of intervention efforts for internalizing students should be upon remediation of social and academic skill deficits, increasing social contacts with peers, and improving peer acceptance.
- Behavioral acceleration procedures are appropriate for use with Internalizers; behavioral reduction procedures are generally not appropriate and should not be used with this population of students.
- Internalizers are often fearful of social contact with others and are poorly motivated to make friends. Careful attention should be devoted to finding ways to motivate the student to value social contact with others and to reduce or ameliorate fears associated with social exchanges.
- Internalizers should be systematically taught the essential social skills that support peer involvement, friendship making and peer acceptance, and then provided with opportunities to display these skills in a protected setting (e.g., role-playing situations, recess, etc.) supervised by an adult. Coaching strategies used in this context can be highly

effective in facilitating the correct demonstration and performance of such skills.

- Supportive peers should be recruited to assist the target student in making social contacts with classmates in free play settings.
- Normal peers should be prompted, cued, reinforced and coached for actively supporting the social initiations and approach behavior of the internalizing student.

RESOURCES The resources that follow focus on intervention procedures for reducing behavioral deficits, increasing social contacts and implementing social skills curricula for the improvement of social skills.

For behavioral deficits, two available texts are recommended along with one consultant based intervention program. Each is described below.

Remediating Behavioral Deficits

Social Survival for Children, Peter Dowrick (1986), Brunner/Mazel, Inc., New York City, NY. This is a superb text that focuses on the dynamics of social skills, social tasks and situations and peer relations. Early in this text, social skills are defined and conceptualized and approaches to social skills training are reviewed. Recommended assessment and intervention procedures are then illustrated in a series of chapters that focus on the shy child, the fearful child, the affectively disturbed child, the child with special needs and a range of other child specific topics. This book provides one of the most comprehensive treatments available relating to the remediation of social and affective disorders of internalizing students. It is highly recommended as an effective resource for designing interventions for internalizing students.

Psychological Disorders of Childhood, Alan O. Ross (1980), McGraw-Hill, Inc., New York City, NY. This is a classic text that deals with the conceptualization, classification, assessment and remediation of the full range of psychological disorders of children. It is comprehensive and well written. One of its salient features

is that it presents a behavioral approach to the treatment of psychological disorders of childhood. It provides nine chapters on specific disorders of childhood, ranging from aggression and juvenile delinquency to hyperactivity and mental subnormality. Comprehensive chapters are presented that address fears, phobias and social isolation, psychotic behavior, psychological disorders and learning disabilities. Each of these chapters has substantial relevance for the design of school-based interventions for internalizing students.

PEERS: Procedures for Establishing Effective Relationship Skills, Hyman Hops, Hill M. Walker and Charles Greenwood (1988), Educational Achievement Systems, Inc., Seattle, WA. This behavior management package was also developed as part of the research and development effort in behavior disorders at the University of Oregon (Paine, Bellamy & Wilcox, 1984; Walker, Hops & Greenwood, 1984). PEERS was designed to remediate the socially withdrawn behavior of internalizing students in grades K to 3 or 4. The program is managed by a classroom teacher or teacher consultant and involves the child's peers, teacher and playground supervisor. It requires between 30 and 40 school days for implementation. There are four primary components in the PEERS program: social skills tutoring and games, an individual point system with group backup rewards implemented at recess, joint task in which the target child participates in an academic task with each class member separately, and a self-report, verbal correspondence procedure. PEERS has proved to be highly effective in remediating patterns of social withdrawal and is a well researched and field tested program. It is widely used by consultants and teachers in school settings.

Social Skills Training

It is extremely important that internalizers be exposed to systematic social skills training as dictated by their skill(s) deficit profiles. Internalizers are especially inclined to be deficient in the social skills that support peer relations, friendship making and the recruitment of social support networks. The same guidelines and

curricula resources referred to above for conducting social skills training with Externalizers apply with equal content validity to Internalizers. However, due to their divergent behavior patterns, some of the target social skills emphases for the two groups will probably differ (i.e., Externalizers are likely to be most deficient in adult-related forms of adjustment and Internalizers are likely to be most deficient in peer related forms of adjustment). A major advantage of conducting social skills training with Internalizers is that they usually do not have well-developed patterns of maladaptive behavior that compete with the acquisition and mastery of key social skills. Thus, they are more likely to be responsive to such training than are externalizers. However, the authors know of no empirical studies that have systematically investigated this question.

Recommendations for At-Risk Students

Although there may be considerable overlap, in some cases, between students at risk for behavior disorders and those at risk for school dropout, they are by no means identical subpopulations. Students at risk for school dropout often exhibit a characteristic profile of attitudinal, social-behavioral and academic performance problems. Such students are likely to come from family backgrounds that are disadvantaged and where school success is not highly valued. Many at-risk students are quite capable academically but achieve well below their ability levels. At-risk students are frequently alienated from the school environment and the schooling process. In many cases, they are extremely discouraged by failing grades and by negative feedback resulting from their substandard academic performance. Many have difficulty relating their own actions, in a causal sense, to their school failure. Their levels of self-esteem and feelings of self-worth are usually below normal. At-risk students often associate with each other, which further distances them from inclusion in the normal process of schooling. Their social support networks tend to be narrow and to be comprised of students who display similar levels of alienation or disengagement from the schooling process.

RECOMMENDATIONS The following recommendations are offered for the reader's consideration in dealing with elementary grade-level students at risk for school failure and subsequent school dropout.

- The primary focus of school interventions for at-risk students should be on developing adequate support networks in both academic and social areas.
- Academic interventions should include careful monitoring of the student's academic performance and daily charting of grades for assignments so the student can gauge the impact of his/her performance on school success over time.
- At-risk students should be strongly encouraged in their academic efforts through adult praise, social interest, consistent monitoring, encouragement and the use of school and home reward systems.
- At-risk students should be provided continuing access to tutorial assistance as their skill deficits dictate.
- Systematic social skills training should be used to improve at risk students' social effectiveness, particularly in the areas of friendship-making and relating to adults.
- Attempts should be made to establish mentoring relationships between certain teachers and the at-risk student and, where possible, between socially skilled peers and the at-risk student.
- The at-risk student should be exposed to cooperative learning strategies and classwide peer tutoring systems to strengthen weak academic skills and also to establish peer study and working relationships that may generalize beyond the classroom setting.
- It is especially important that at-risk students have regular and continuing access to school-based counselling services.

RESOURCES School-based resources for the at risk student should include existing programs targeted for this population (e.g., Chapter I, classroom interventions such as peer tutoring and cooperative learning strategies, access to school counselling services, systematic social skills training, and curriculum-based as-

assessment and intervention procedures for carefully monitoring their academic performance). Each school having a significant population of students at risk for school dropout should consider developing a school-wide at-risk plan that focuses on the identification, support and retention of at-risk students. School-wide assistance teams are an ideal vehicle for coordinating such an at-risk plan (Chalfant & Pysh, 1989). Some recommended texts and programs for assessing and intervening with the at-risk student are listed below.

Capuzzi, D., and Gross, D. (Eds.), (1989). *Youth At Risk: A Resource for Counselors, Teachers and Parents*. Available through the American Association for Counselling and Development; 5999 Stevenson Ave, Alexandria, VA 22034.

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Finally, the *Center for Urban Research in Education (CURE)* was established collaboratively by Portland State University and the Portland, Oregon public school system in 1987 for the purpose of conducting research on the causes of school drop out for at-risk youth in urban settings. The CURE center has an annual grant and a legislative mandate from the Oregon legislature to develop effective drop out prevention programs for use in school and community settings. They are conducting a number of research studies on this problem and are a valuable resource on effective methods for use in dealing with the at risk school population, particularly within urban areas. Copies of their list of publications and newsletters can be obtained by writing to CURE, Portland State University, P.O. Box 751, Portland, OR 97207-0751.

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Appendix A

Means, Standard Deviations, and Standard Errors for Stage Two and Stage Three SSBD Measures by Subject Group

NOTE: The normative levels in these tables are based upon observations of students representing the highest-ranked externalizers; highest-ranked internalizers; and boy and girl pairs randomly selected from the pool of normal non-ranked students in SSBD screening Stage One.

The normative levels for only those students who pass through SSBD Gate Three would be substantially different than those reported in the following tables.

Table 17
Critical Events Checklist Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	1113	0.12	0.46	0.01
Externalizers	1695	3.40	2.94	0.07
Internalizers	1655	2.03	2.00	0.05
TOTAL	4463	2.07	2.54	0.04

Table 18
Combined Adaptive Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	1107	55.29	5.45	0.16
Externalizers	1665	35.91	8.47	0.21
Internalizers	1629	44.42	9.31	0.23
TOTAL	4401	43.94	11.11	0.17

Table 19
Combined Maladaptive Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	1087	13.37	3.84	0.12
Externalizers	1641	29.45	8.64	0.21
Internalizers	1605	17.20	6.11	0.15
TOTAL	4333	20.88	9.63	0.15

Table 20
Academic Engaged Time Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	377	75.19	14.989	0.77
Externalizers	222	62.72	20.37	1.37
Internalizers	210	69.71	17.30	1.19
TOTAL	809	70.35	17.96	0.63

Table 21
Academic Engaged Time Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	223	81.43	12.95	0.87
Externalizers	115	62.14	19.70	1.84
Internalizers	117	72.18	19.35	1.79
TOTAL	455	74.18	18.40	0.86

Table 22
Academic Engaged Time Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Normal	571	77.64	14.42
Externalizers	319	62.52	20.40
Internalizers	316	70.86	17.38
TOTAL	1206	71.86	18.06

Table 23
PSB Social Engagement Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	72.61	25.40	1.34
Externalizers	215	67.11	26.12	1.78
Internalizers	210	66.70	26.38	1.82
TOTAL	786	69.52	25.99	0.93

Table 24
PSB Social Engagement Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	70.18	28.40	1.95
Externalizers	109	60.65	29.29	2.81
Internalizers	112	63.24	30.13	2.85
TOTAL	433	65.98	29.32	1.41

Table 25
PSB Social Engagement Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	71.71	26.55	1.11
Externalizers	324	64.94	27.36	1.52
Internalizers	322	65.49	27.74	1.55
TOTAL	1219	68.27	27.26	0.78

Table 26
PSB Participation Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	11.86	23.16	1.22
Externalizers	215	12.34	23.41	1.60
Internalizers	210	10.18	22.59	1.56
TOTAL	786	11.54	23.06	0.82

Table 27
PSB Participation Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	21.17	28.42	1.95
Externalizers	108	26.57	30.60	2.94
Internalizers	112	16.31	25.60	2.42
TOTAL	432	21.26	28.46	1.37

Table 28
PSB Participation Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	15.31	25.61	1.07
Externalizers	323	17.10	26.84	1.49
Internalizers	322	12.31	23.82	1.33
TOTAL	1218	14.99	24.53	0.73

Table 29
PSB No-Code Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	2.43	6.36	0.33
Externalizers	215	2.91	5.41	0.37
Internalizers	210	2.75	7.22	0.50
TOTAL	786	2.65	6.36	0.23

Table 30
PSB No-Code Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	2.37	5.48	0.38
Externalizers	108	1.99	4.16	0.40
Internalizers	112	3.55	9.23	0.87
TOTAL	432	2.58	6.43	0.31

Table 31
PSB No-Code Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	2.41	6.04	0.25
Externalizers	323	2.61	5.04	0.28
Internalizers	322	3.03	7.97	0.44
TOTAL	1218	2.62	6.38	0.18

Table 32
PSB Alone Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	5.97	10.02	0.53
Externalizers	215	9.93	14.10	0.96
Internalizers	210	10.91	14.64	1.01
TOTAL	786	8.37	12.74	0.45

Table 33
PSB Alone Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	2.40	6.00	0.41
Externalizers	108	5.75	12.66	1.22
Internalizers	112	8.49	16.31	1.54
TOTAL	432	4.81	11.51	0.55

Table 34
PSB Alone Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	4.65	8.91	0.37
Externalizers	323	8.53	13.76	0.77
Internalizers	322	10.07	15.26	0.85
TOTAL	1218	7.11	12.43	0.36

Table 35
PSB Parallel Play Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	7.25	11.25	0.59
Externalizers	215	7.27	10.08	0.69
Internalizers	210	9.60	12.53	0.87
TOTAL	786	7.88	11.34	0.40

Table 36
PSB Parallel Play Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	3.32	9.91	0.68
Externalizers	108	4.88	8.83	0.85
Internalizers	112	8.11	16.25	1.54
TOTAL	432	4.83	11.81	0.57

Table 37
PSB Parallel Play Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	5.80	10.93	0.46
Externalizers	323	6.30	9.76	0.54
Internalizers	322	9.08	13.93	0.78
TOTAL	1218	6.80	11.16	0.33

Table 38
PSB Alone + Parallel Play Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	13.22	16.76	0.88
Externalizers	215	17.19	18.68	1.27
Internalizers	210	20.51	20.82	1.44
TOTAL	786	16.26	18.67	0.67

Table 39
PSB Alone + Parallel Play Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	5.71	11.98	0.82
Externalizers	108	10.13	16.98	1.63
Internalizers	112	16.60	23.75	2.24
TOTAL	432	9.62	17.53	0.84

Table 40
PSB Alone + Parallel Play Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	10.44	15.58	0.65
Externalizers	323	14.83	18.41	1.02
Internalizers	322	19.15	21.93	1.22
TOTAL	1218	13.91	18.54	0.53

Table 41
PSB Negative Interaction Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	2.15	4.90	0.26
Externalizers	215	6.54	10.51	0.72
Internalizers	210	1.79	3.98	0.27

Table 42
PSB Negative Interaction Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	1.50	4.46	0.31
Externalizers	108	5.20	7.61	0.73
Internalizers	112	1.11	3.47	0.33
TOTAL	432	2.32	5.48	0.26

Table 43
PSB Negative Interaction Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	1.91	4.75	0.20
Externalizers	323	6.09	9.65	0.54
Internalizers	322	1.55	3.82	0.21
TOTAL	1218	2.92	6.53	0.19

Table 44
PSB Positive Interaction Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	71.20	25.79	1.36
Externalizers	215	60.89	25.34	1.73
Internalizers	210	65.51	21.60	1.84
TOTAL	786	66.86	26.22	0.94

Table 45
PSB Positive Interaction Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	69.78	28.23	1.94
Externalizers	108	55.55	28.55	2.75
Internalizers	112	62.72	29.56	2.79
TOTAL	432	64.39	29.19	1.40

Table 46
PSB Positive Interaction Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	70.67	26.70	1.12
Externalizers	323	59.11	26.54	1.48
Internalizers	322	64.54	27.65	1.54
TOTAL	1218	65.98	27.32	0.78

Table 47
PSB Total Negative Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	2.54	5.98	0.31
Externalizers	215	7.48	11.13	0.76
Internalizers	210	1.95	4.10	0.28
TOTAL	786	3.73	7.75	0.28

Table 48
PSB Total Negative Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	1.77	4.84	0.33
Externalizers	108	6.34	8.64	0.83
Internalizers	112	1.32	3.89	0.37
TOTAL	432	2.80	6.18	0.30

Table 49
PSB Total Negative Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	2.26	5.59	0.23
Externalizers	323	7.10	10.36	0.58
Internalizers	322	1.73	4.04	0.23
TOTAL	1218	3.40	7.24	0.21

Table 50
PSB Total Positive Scores for Students in Grades 1-3

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	81.94	19.10	1.01
Externalizers	215	71.88	21.65	1.48
Internalizers	210	74.91	22.50	1.55
TOTAL	786	77.31	21.20	0.76

Table 51
PSB Total Positive Scores for Students in Grades 4-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	89.21	15.96	1.10
Externalizers	108	80.39	20.99	2.02
Internalizers	112	78.50	25.37	2.40
TOTAL	432	84.22	20.60	1.99

Table 52
PSB Total Positive Scores for Students in Grades 1-6

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	84.63	18.32	0.77
Externalizers	323	74.73	21.77	1.21
Internalizers	322	76.16	23.56	1.31
TOTAL	1218	79.76	21.24	0.61

Appendix B

Conversion of AET, Alone + Parallel Play, and Total Negative Scores
for Standard Scores by Subject Group

Table 53**Conversion of Academic Engaged Time (AET) Scores to T-Scores
and Percentages for Externalizing Subjects**

<i>T-Score</i>	<i>AET (%)</i>	<i>Percentile</i>
67	95-99	99.9
65	90-94	99.1
62	85-89	93.1
60	80-84	85.9
57	75-79	77.4
55	70-74	69.3
52	65-69	58.9
50	60-64	47.6
47	55-59	38.2
45	50-54	32.3
42	45-59	26.0
14	40-44	20.7
37	35-39	16.3
35	30-34	9.1
32	25-29	6.9
30	20-24	5.0
28	15-19	3.1
25	10-14	1.9
23	5-9	0.9

Table 54

**Conversion of Academic Engaged Time (AET) to
Standard Scores and Percentiles for Internalizers**

<i>T-Score</i>	<i>AET (%)</i>	<i>Percentile</i>
68	100-104	99.9
65	95-99	99.7
62	90-94	95.3
59	85-89	88.0
54	75-79	65.2
51	70-74	54.4
48	65-69	41.8
45	60-64	29.7
42	55-59	23.1
39	50-54	18.0
36	45-49	12.7
34	40-44	8.9
31	35-39	5.1
28	30-34	3.8
25	25-29	2.8
22	20-24	0.9
16	10-14	0.6
13	5-9	0.3

Table 55**Conversion of Academic Engaged Time (AET) Scores for Standard Scores
and Percentiles for Non-Identified Subjects**

<i>T-Score</i>	<i>AET (%)</i>	<i>Percentile</i>
67	100-104	99.9
63	95-99	99.1
60	90-94	93.0
57	85-89	78.3
53	80-84	64.6
50	75-79	47.8
46	70-74	35.6
43	65-69	22.9
39	60-64	16.8
36	55-59	11.7
32	50-54	7.7
29	45-49	4.7
26	40-44	3.0
22	35-39	1.4
19	30-34	1.2
15	25-29	0.9
5	10-14	0.4
1	5-9	0.2

Table 56

**Conversion of Alone + Parallel Play PSB Scores
to Standard Scores and Percentiles for Externalizing Subjects**

<i>T-Score</i>	<i>Value</i>	<i>Percentile</i>
95	95-99	99.9
87	80-84	99.4
84	75-79	99.1
81	70-74	98.5
79	65-69	98.1
76	60-64	97.5
73	55-59	96.9
70	50-54	94.7
68	45-49	93.5
65	40-44	92.3
62	35-39	89.2
59	30-34	85.8
57	25-29	81.7
54	20-24	77.7
51	15-19	73.4
48	10-14	64.7
45	5-9	55.1
43	0-4	40.2

Table 57**Conversion of Alone + Parallel Play PSB Scores to
Standard Scores and Percentiles for Internalizers**

<i>T-Score</i>	<i>Value</i>	<i>Percentile</i>
88	100-104	99.9
86	95-99	99.4
83	90-94	98.8
81	85-89	98.4
79	80-84	97.5
76	75-79	96.9
74	70-74	96.6
72	65-69	95.7
70	60-64	95.0
67	55-59	94.4
65	50-54	92.9
63	45-49	89.8
60	40-44	87.3
58	35-39	83.2
56	30-34	80.1
53	25-29	74.2
51	20-24	69.3
49	15-19	64.0
47	10-14	55.9
44	5-9	46.3
42	0-4	34.8

Table 58**Conversion of Alone + Parallel Play Scores (PSB) to
Standard Scores and Percentiles for Non-Identified Subjects**

<i>T-Score</i>	<i>Value</i>	<i>Percentile</i>
106	95-99	99.9
103	90-94	99.8
100	85-89	99.5
96	80-84	99.3
93	75-79	99.1
90	70-74	99.0
87	65-69	98.6
80	55-59	97.9
77	50-54	97.4
73	45-49	96.7
70	40-44	96.2
67	35-39	93.9
64	30-34	91.4
60	25-29	88.8
57	20-24	86.6
54	15-19	82.5
51	10-14	76.1
47	5-9	67.2
44	0-4	53.4

Table 59**Conversion of Total Negative Scores on the PSB Code to
Standard Scores and Percentiles for Externalizing Subjects**

<i>T-Score</i>	<i>Value</i>	<i>Percentile</i>
134	94	99.9
106	65	99.7
87	46	99.4
80	38	98.1
70	28	96.3
69	26	96.0
68	25	95.4
67	24	94.7
66	23	94.4
65	22	93.2
64	21	92.9
63	20	92.0
62	19	90.7
61	18	89.5
60	17	88.2
59	16	87.3
58	15	86.4
57	14	85.4
56	13	83.9
55	12	81.1
54	11	78.9
53	10	74.6
52	9	72.8
51	8	69.0
50	7	65.9
49	6	62.2
48	5	59.1
47	4	55.4
46	3	51.1
45	2	44.6
44	1	37.2
43	0	23.8

Table 60

**Conversion of Total Negative PSB Scores to
Standard Scores and Percentiles for Internalizers**

<i>T-Score</i>	<i>Value</i>	<i>Percentile</i>
112	27	99.9
107	25	99.7
100	22	99.4
97	21	99.1
95	20	98.4
87	17	98.1
82	15	97.8
80	14	97.5
75	12	97.2
73	11	96.6
70	10	96.0
68	9	94.1
65	8	93.5
63	7	91.9
60	6	91.0
58	5	88.5
55	4	86.6
53	3	85.4
51	2	80.4
48	1	75.2
46	0	65.5

Table 61

**Conversion of Total Negative Scores on PSB to Standard Scores
and Percentiles for Non-Identified Subjects**

<i>T-Score</i>	<i>Value</i>	<i>Percentile</i>
142	54	99.9
119	41	99.8
110	36	99.7
105	33	99.5
103	32	99.0
99	30	98.8
96	28	98.6
87	23	98.4
83	21	98.1
82	20	97.9
78	18	97.7
76	17	97.6
74	16	97.4
73	15	96.9
71	14	96.3
69	13	96.2
67	12	95.5
65	11	94.6
64	10	93.9
62	9	93.5
60	8	91.6
58	7	90.4
57	6	88.8
55	5	87.4
53	4	86.7
51	3	83.4
49	2	78.7
48	1	71.2
46	0	58.5

Appendix C

Conversion of PSB Stage Three Scores
to Standard Scores and Percentiles for Non-Ranked Students

Table 62
Conversion of PSB Parallel Play Scores for Non-Identified
Students to Standard Scores and Percentiles

<i>T-Score</i>	<i>Value</i>	<i>Percentile</i>
131	90	99.9
107	65	99.8
102	60	99.7
93	50	99.3
88	45	99.0
83	40	98.4
79	35	97.4
74	30	96.3
69	25	94.8
65	20	93.5
60	15	90.8
55	10	86.9
50	5	81.2
46	0	70.7

Table 63
Conversion of PSB Alone Scores for Non-Identified
Students to Standard Scores and Percentiles

<i>T-Score</i>	<i>Value</i>	<i>Percentile</i>
139	80	99.9
122	65	99.8
110	55	99.7
104	50	99.3
98	45	99.0
92	40	98.8
87	35	98.4
81	30	97.9
75	25	97.6
69	20	96.5
63	15	94.8
58	10	92.1
52	5	85.7
46	0	70.5

Table 64
Conversion of PSB Total Positive Scores for Non-Identified Students
to Standard Scores and Percentiles

<i>T-Score</i>	<i>Value</i>	<i>Percentile</i>
59	100	99.9
57	95	85.9
54	90	61.6
51	85	44.7
49	80	34.9
46	75	27.9
43	70	20.8
41	65	16.2
38	60	12.9
35	55	9.8
32	50	8.2
30	45	6.5
27	40	5.2
24	35	4.2
22	30	2.3
19	25	1.9
16	20	1.7
14	15	1.2
11	10	0.9
8	5	0.7
6	0	0.3

Table 65
Conversion of Academic Engaged Time to
Standard Scores for Non-Ranked Male Students

<i>T-Score</i>	<i>AET (%)</i>	<i>Percentile</i>
67	100	99.9
64	95	99.6
61	90	95.4
57	85	81.6
54	80	68.8
51	75	51.8
47	70	37.6
44	65	24.5
41	60	18.8
37	55	13.8
34	50	9.9
31	45	6.0
27	40	3.9
24	35	2.5
21	30	2.1
18	25	1.4
4	5	0.4

Table 66
Conversion of PSB Social Engagement Scores to Standard Scores
for Non-Ranked Male Students

<i>T-Score</i>	<i>Social Engagement</i>	<i>Percentile</i>
63	100	99.9
61	95	94.7
59	90	82.3
57	85	72.3
56	80	64.9
54	75	58.9
52	70	52.1
50	65	47.2
49	60	42.9
47	55	37.9
45	50	31.9
43	45	28.7
42	40	25.2
40	35	22.7
38	30	16.3
36	25	14.5
35	20	10.6
33	15	9.9
31	10	6.7
29	5	3.9
28	0	3.2

Table 67
Conversion of PSB Participation Scores
to Standard Scores for Non-Ranked Male Students

<i>T-Score</i>	<i>Participation</i>	<i>Percentile</i>
77	100	99.9
76	95	98.6
74	90	97.5
72	85	97.2
70	80	96.1
69	75	93.6
67	70	92.9
65	65	90.1
63	60	86.9
62	55	84.4
60	50	81.6
58	45	79.1
57	40	74.1
55	35	72.0
53	30	68.4
51	25	66.7
50	20	64.5
48	15	62.8
49	10	61.0
44	5	57.8
43	0	54.6

Table 68
Conversion of PSBB No-Code Scores
to Standard Scores for Non-Ranked Male Students

<i>T-Score</i>	<i>No-Code Score</i>	<i>Percentile</i>
167	50	99.9
95	20	99.6
83	15	98.6
71	10	98.2
59	5	95.4
47	0	87.6

Table 69

**Conversion of PSB Positive Interaction Scores
to Standard Scores for Non-Ranked Male Students**

<i>T-Score</i>	<i>Positive Interaction</i>	<i>Percentile</i>
63	100	99.9
61	95	95.4
60	90	84.8
58	85	73.8
56	80	66.7
54	75	60.3
53	70	53.5
51	65	48.2
49	60	43.6
48	55	39.4
46	50	35.8
44	45	32.6
42	40	28.4
42	35	25.2
39	30	18.1
37	25	15.2
35	20	11.7
34	15	10.3
32	10	7.1
30	5	3.9
28	0	2.5

Table 70

**Conversion of PSB Negative Interaction Scores
to Standard Scores for Non-Ranked Male Students**

<i>T-Score</i>	<i>Negative Interaction</i>	<i>Percentile</i>
113	30	99.9
102	25	99.3
91	20	98.6
80	15	97.5
69	10	96.5
58	5	93.6
47	0	85.5

Table 71
Conversion of Total Negative Scores
to Standard Scores for Non-Ranked Male Students

<i>T-Score</i>	<i>Total Negative</i>	<i>Percentile</i>
133	50	99.9
107	35	99.6
98	30	99.3
90	25	98.2
81	20	97.9
73	15	96.8
64	10	96.1
55	5	91.8
47	0	83.0

Table 72
Conversion of Academic Engaged Time (AET)
to Standard Scores for Non-Ranked Female Students

<i>T-Score</i>	<i>AET (%)</i>	<i>Percentile</i>
67	100	99.9
63	95	98.6
59	90	90.7
56	85	75.1
52	80	60.6
49	75	43.9
45	70	33.6
41	65	21.5
38	60	14.9
34	55	9.7
30	50	5.5
27	45	3.5
23	40	2.1
1	10	0.3

Table 73**Conversion of PSB Social Engagement Scores
to Standard Scores for Non-Ranked Female Students**

<i>T-Score</i>	<i>Social Engagement</i>	<i>Percentile</i>
60	100	99.9
58	95	86.3
56	90	68.7
54	85	57.4
52	80	49.5
50	75	44.3
47	70	37.8
45	65	29.9
43	60	22.7
41	55	19.2
39	50	16.5
37	45	12.0
34	40	9.3
32	35	7.9
30	30	6.2
28	25	5.2
26	20	4.1
24	15	2.4
21	10	2.1
19	5	1.7
17	0	0.7

Table 74
Conversion of PSB Participation Scores
to Standard Scores for Non-Ranked Female Students

<i>T-Score</i>	<i>Participation</i>	<i>Percentile</i>
96	90	99.9
93	85	99.3
90	80	99.0
88	75	98.6
85	70	98.3
82	65	97.6
79	60	97.3
76	55	95.9
74	50	95.5
71	45	94.8
68	40	93.1
65	40	93.1
62	30	90.7
60	25	88.3
57	20	84.2
54	15	81.8
51	10	79.7
48	5	79.0
46	0	75.3

Table 75
Conversion of PSB No-Code Scores
to Standard Scores for Non-Ranked Female Students

<i>T-Score</i>	<i>No-Code</i>	<i>Percentile</i>
156	75	99.9
90	30	99.7
83	25	98.6
76	20	97.6
69	15	95.9
61	10	93.1
54	5	91.4
47	0	82.5

Table 76
Conversion of PSB Positive Interaction Scores
to Standard Scores for Non-Ranked Female Students

<i>T-Score</i>	<i>Positive Interaction</i>	<i>Percentile</i>
61	100	99.9
59	95	88.0
56	90	70.4
54	85	59.1
52	80	53.3
50	75	46.4
48	70	38.1
46	65	30.9
43	60	24.1
41	55	19.2
39	50	16.2
37	45	11.3
35	40	10.3
33	35	7.9
30	30	6.5
28	25	5.5
26	20	4.8
24	15	2.4
20	5	2.1
17	0	0.7

Table 77
Conversion of PSB Negative Interaction Scores
to Standard Scores for Non-Ranked Female Students

<i>T-Score</i>	<i>Negative Interaction</i>	<i>Percentile</i>
144	40	99.9
120	30	99.7
96	20	99.3
84	15	98.3
72	10	96.6
60	5	95.5
48	0	93.1

Table 78
Conversion of PSB Total Negative Scores
to Standard Scores for Non-Ranked Female Students

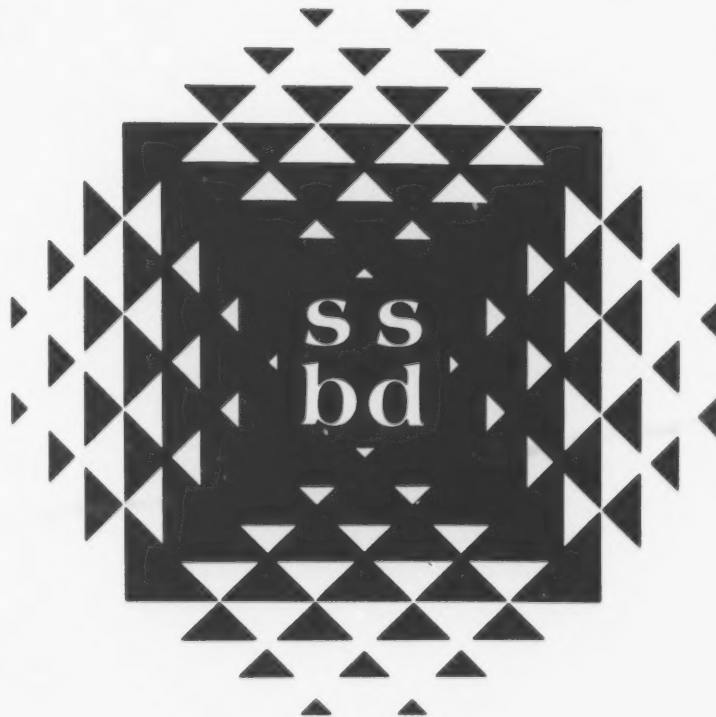
<i>T-Score</i>	<i>Total Negative</i>	<i>Percentile</i>
139	40	99.9
116	30	99.7
93	20	99.0
82	15	98.6
71	10	96.6
59	5	95.2
48	0	91.4

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Systematic Screening for Behavior Disorders

TECHNICAL MANUAL



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**Systematic Screening
for Behavior Disorders (SSBD)**

Technical Manual

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Introduction

Children with severe behavior disorders (SBD) are consistently ranked by professionals as representing one of the highest service priorities among all handicapping conditions served by the public school system. However, currently used screening and identification procedures for this population are often regarded as deficient by professionals, local educational agencies, state departments of education and federal agencies in the area of special education (Executive Committee: Council for Children with Behavior Disorders, 1987; Haring, Jewell, Lehning, Morrell, & White, 1984; Kauffman, J., 1987, 1989; Noel, 1982; Walker & Fabre, 1987).

Barriers to effective screening-identification and service delivery efforts for the school-age SBD population include the following:

- an inadequate conceptualization of behavior disorders among school-age children,
- a failure to distinguish between behavior disorders and discipline issues in program practices,
- a federal definition of severe emotional disturbance that has limited content validity and even less practical utility in providing a foundation for accommodating the needs of this population,
- philosophical conflicts over effective approaches and appropriate outcome measures, and
- territorial conflicts among different professions regarding responsibility for the problems presented by the SBD pupil.

This listing is by no means inclusive or exhaustive; however, it does partially explain why the SBD school-age population is, at once, both inadequately served and substantially underserved by many school systems.

Walker, Reavis, Rhode, and Jenson (1985) noted that school-based accommodation procedures targeted for the SBD child are characterized by a focus on control and containment rather than on treatment, remediation or prevention. For example, over 75% of SBD pupils are served in self-contained classrooms or in more restrictive settings (day treatment centers, residential programs and so forth) (Grosenick & Huntze, 1980; Noel, 1982). In recurring national surveys of *Local Education Agency* (LEA) or school district program practices for the SBD population, Grosenick and her

associates (Grosenick & Huntze, 1980; Grosenick, George, and George, 1991) report that of all children who receive homebound instruction, approximately 40% have behavioral disorders, even though SBD pupils comprise a relatively small proportion of the total handicapped population identified and served by schools (i.e., usually less than 10%). Further, they conservatively estimate that approximately 750,000 school-age pupils would qualify as SBD but currently receive **no services whatsoever** for their behavior problems. In recent U.S. Senate testimony in support of re-authorizing the Education of the Handicapped Act, the National Mental Health and Special Education Coalition (Forness, 1989) called for new legislation to address the myriad complex problems and deficits that exist in serving this population, particularly within public school settings.

The range of non *least restrictive environment* (LRE) program options normally available to children with severe behavior disorders includes (a) self-contained and resource rooms, (b) special schools, (c) out-of-district placements, (d) residential placements, (e) consultant teachers, and (f) homebound instruction. The great majority of pupils who are referred by teachers and subsequently placed in such settings are those with conduct disorders and aggressive behavior patterns whose behavioral characteristics are

- externalizing in nature, i.e., directed outwardly toward the external social environment and
- extremely aversive to teachers and peers (Achenbach, 1979; Ross, 1980; Walker, Hops, & Greenwood, 1984; Morgan & Jenson, 1988).

Current identification and service delivery practices for the school SBD population are clearly reactive rather than proactive; as a rule, pupils are referred only when their behavior problems exceed teacher tolerance limits.

Except in relatively rare instances, school-age children are not systematically screened for behavior disorders that can powerfully affect their school success, long-term adjustment and social development. As with many other handicapping conditions that directly impinge on the schooling process, referral by the classroom teacher often represents the only avenue such children have to evaluation, diagnosis, placement and, ultimately, access to existing intervention services. However, such teacher referrals are often subjective and highly idiosyncratic. Research by Ysseldyke and his colleagues (Ysseldyke, Algozzine, & Epps, 1983; Ysseldyke & Thurlow, 1984) indicates that school psychologists and child study teams administer tests and collect data to essentially confirm or certify the

validity of the teacher's referral(s). In the majority of cases, the referral is certified—sometimes even when data gathered by the child study team do not directly support the decision to certify the pupil as handicapped!

It is apparent that the classroom teacher is a very important link between children with behavior disorders and programs and services that could be of significant value in remediating their problem(s). At present, school systems have very little control over who gets referred and evaluated for possible services. Analyses of existing school practices indicate that children whose behavior is aversive to teachers and peers (e.g., noncompliance, aggression and defiance) and/or disruptive of classroom atmosphere (e.g., tantrums, disturbing others and stealing) are those with the highest probability of referral (Grosenick, 1981; Noel, 1982; Morgan & Jenson, 1988). This probability may vary considerably as a function of the teacher's tolerance level, behavioral standards and his or her perception(s) of the effectiveness of existing school services for coping with the problem (see Gerber & Semmel, 1983; Gersten, Walker & Darch, 1988; Kauffman, Lloyd & McGee, 1989). Gerber and Semmel (1984) have argued that teachers routinely compare individual pupils to an idealized "teachability standard" and that those pupils who deviate too far from this standard, in terms of their social, behavioral and/or academic performance, are referred for evaluation and specialized services or placements. Teachers vary considerably in their application of this "teachability standard" — a factor which doubtless contributes to the subjectivity and idiosyncratic nature of teacher behavioral referrals.

Child behavior problems of an internalizing nature that represent problems with self (e.g., depression, phobias, disturbances of affect and social withdrawal/isolation) not only tend to occur somewhat less frequently but are far less salient for most teachers. Such problems are usually non-aversive to teachers and peers and are regarded as child-owned rather than teacher-owned (Brophy & Rohrkemper, 1980). Teachers are much less likely to assume direct responsibility for child-owned problems and are also less likely to refer pupils manifesting them to existing services (Brophy & Evertson, 1981). However, studies indicate that children with behavior disorders of this type can be seriously at risk for a range of developmental disorders and adjustment problems (Hops, 1983; Parker & Asher, 1987; Robbins, 1966). There is increasing evidence that social withdrawal and depression are the major problem(s) in a significant number of children who are ultimately referred for psychological treatment (Reynolds, 1984).

The authors have designed a three-stage, systematic screening and identification procedure that addresses many of the problems and issues raised above in serving the SBD school population within the elementary age range. A major goal of the procedure is the systematic screening-identification of pupils who are appropriate referrals to child study teams. An overview and rationale for this system follow immediately. The remainder of this technical manual describes

- the process and outcomes associated with development of the Stage One, Two and Three assessment measures,
- the psychometric characteristics and validation studies of these measures, and
- the procedures and characteristics associated with developing the national standardization sample and in field testing the system.

Overview

The screening-identification procedure described herein consists of three separate but interrelated stages and is known as a multiple "gating" screening device (Loeber, Dishion & Patterson, 1984; Walker, Hops & Greenwood, 1981) in that it contains a series of progressively more expensive and precise assessments, i.e., gates. This system is referred to as the *Systematic Screening for Behavior Disorders* procedure (SSBD). Stage One, or assessment stage, involves teachers' systematic evaluation of all children in their classes in terms of the extent to which they may be at risk for either **externalizing** or **internalizing** behavior disorders. Stage Two also relies upon teacher judgement of child behavior and requires that pupils who are identified and ranked highest in Stage One on the externalizing and internalizing behavioral dimensions be rated in Stage Two by the teacher in terms of the **content** of their behavior problem(s). High ranked pupils are first rated on a **Critical Events Index** (CEI) and secondly on **Combined Frequency Index** that together assess child behavioral status on multiple exemplars of externalizing and internalizing behavior disorders. Those pupils who exceed normative criteria on the Stage Two instruments are then independently assessed in Stage Three within natural settings (classroom and playground) via direct observations recorded by a school professional other than the teacher (e.g., school psychologist, social worker, counselor and so forth).

In screening Stage Three, the school professional assesses the target pupil(s) on two important measures of school adjustment using direct observation procedures. These are

- academic engaged time recorded during independent seat-work periods and
- amount and quality of social behavior during recess periods on the playground.

The target pupil's status on these measures is compared to grade-level-appropriate normative levels to determine initial eligibility at this stage. If the pupil exceeds normative cutoff points at Stage Three, she/he is then referred to a child study team for further evaluation and decision-making. If not, the target pupil becomes a candidate for prereferral interventions and/or consultative assistance to his or her regular teacher(s).

At this point, child study teams or other school personnel administer additional instruments (standardized tests, diagnostic procedures, etc.) and collect any other data that would be relevant to the referral decision. The authors have also designed and field tested a *School Archival Records Search* (SARS) form and process that documents previous school attempts at accommodating the pupil and their resulting outcomes (see Walker, Block-Pedego, Todis, & Severson, 1991). It is recommended that an archival records search be completed, as a matter of routine practice, on each pupil who meets or exceeds SSBD Stage Three eligibility criteria and is referred to a child study team. A records search of this type meets the P.L.94-142 requirement for assessing the pupil's school history and can provide validation and documentation for much of the SSBD and related screening data.

SSBD procedures and instruments through screening Stage Three are completely standardized and self-contained. Stage Two and Three instruments have normative levels established on them to:

- facilitate decision-making in moving from one screening stage to another and
- assist in determining eligibility in relation to generalized normative criteria.

The national standardization sample on the SSBD Stage Two measures approximates 4500 cases; the standardization sample on the SSBD Stage Three observation codes approximates 1300 cases. See the *SSBD Administration Manual and User's Guide* for implementation guidelines, decision-making criteria and normative cut-off scores.

It is recognized that pupils passing SSBD Stages One to Three may exceed normative levels and expectations for the referring setting but may not exceed normative cutoff scores derived from the standardization sample. The reverse could also occur but is perhaps less likely. These possible outcomes highlight the importance of using normative criteria that are external to the behavioral norms and expectations of specific school settings and local districts in evaluating referred pupils as having severe behavior disorders. However, in this context, it is important to also demonstrate that the referred pupil's behavioral profile is substantially divergent from that of non-referred, same-sexed peers in the referring setting. Procedures for making this determination are described in the *SSBD Administration Manual and User's Guide*.

In the SSBD procedure, each screening stage becomes progressively more expensive in terms of the assessments made. However,

the probability of the pupil meeting eligibility requirements for SBD increases as he/she moves through each stage. The results of subsequent assessment stages serve to validate those of the previous stage(s). At the completion of Stage Three, data and information are available to:

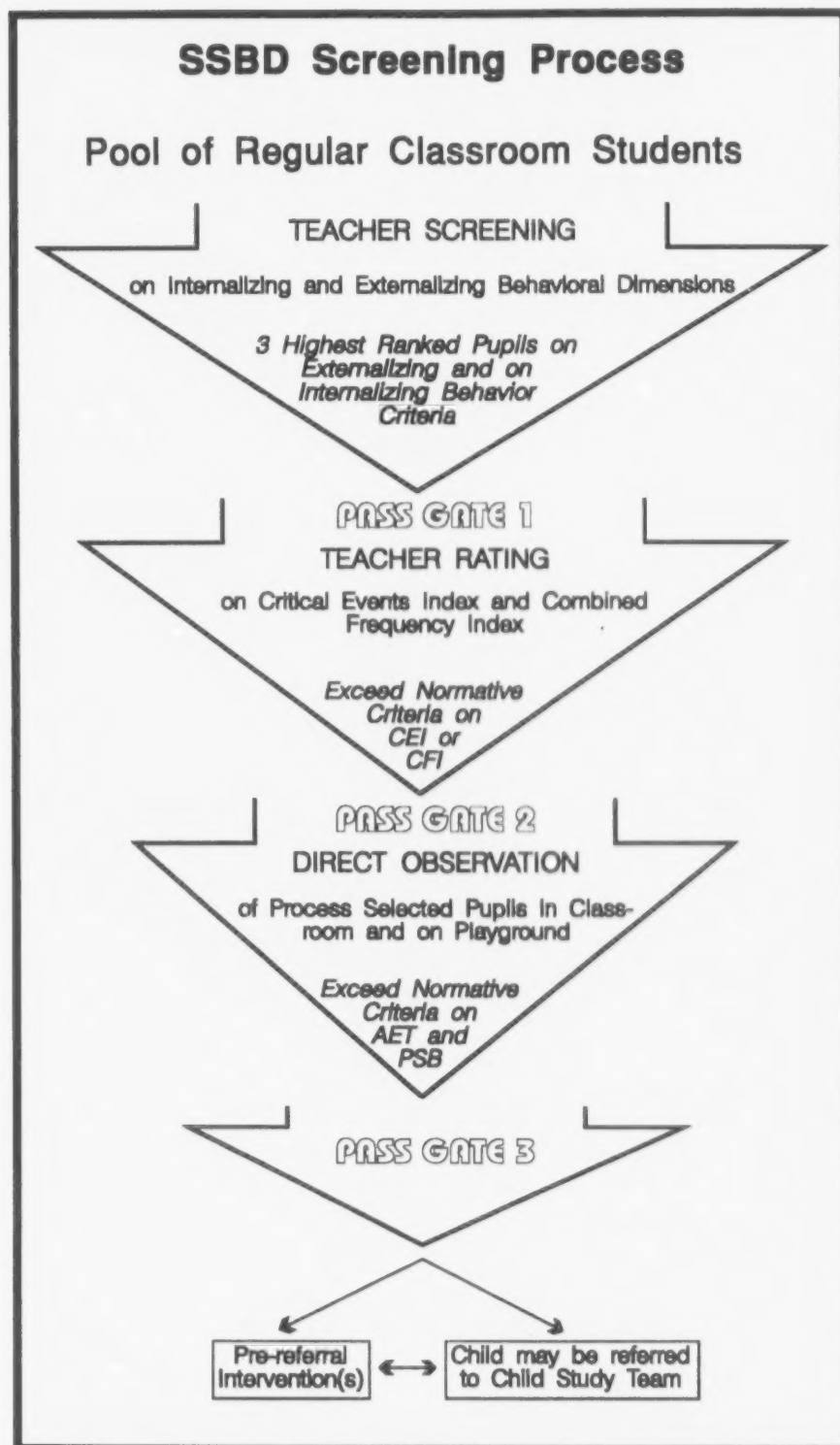
- define the specific content of the referred child's behavior problems (i.e., adaptive behavior deficits and maladaptive behavior excesses) for the purpose of planning a remediation program and
- to make normative comparisons for determining the pupil's specific behavioral status and possible eligibility for special education certification.

The SSBD system's component procedures were designed to be compatible with P.L. 94-142 regulations in determining such eligibility. Figure 1 graphically illustrates the three stages of the SSBD multiple gating system.

Efficient and low-cost mass screening procedures are implemented in SSBD Stage One to identify pupils who may be at risk for externalizing or internalizing behavior problems. The first gate involves teachers' systematic evaluations of pupils in their classes via rank ordering them according to how closely their **characteristic** behavior patterns correspond to externalizing and internalizing behavioral profiles, respectively. The three highest ranked pupils from each ranking dimension ($n=6$) are then assessed by the teacher using Stage Two instruments.

The Stage Two measures include a Critical Events Index and a Combined Frequency Index which, when completed by the teacher, provide information on the specific content of the pupils' behavior patterns. The Critical Events Index is a 33-item checklist of behavioral pinpoints having high salience and intensity but relatively low frequencies (e.g., severe weight loss, suicidal ideation, fire setting, etc.). The Combined Frequency Index consists of a 12-item **Adaptive Rating Scale** and 11-item **Maladaptive Rating Scale** that the teacher rates on a frequency dimension to assess classroom adjustment. Although Stage Two assessments are more expensive in terms of teacher time, they are conducted only on a smaller subset of the total number of pupils screened in Stage One ($n=6$). Teachers rate each pupil's status on behavioral descriptors of externalizing and internalizing behavioral dimensions using the Critical Events Index, and rate the adequacy of **teacher related** and **peer related** forms of adjustment using the Combined Frequency Index. Normative criteria and cutoff points on the Stage Two instruments are used to determine whether any of the rated

Figure 1: Multiple-Gating Assessment Procedure for Identification of Behavior Disordered Students



pupils qualify for further assessment(s) on Stage Three measures. (NOTE: copies of the SSBD Stage One, Two, and Three measures are contained in the *SSBD Instruments and Forms* packet.)

Qualifying pupils who exceed Stage Two criteria are then directly observed within instructional and playground settings in screening Stage Three. As noted earlier, the resulting observational data for such pupils are compared to same sex and grade level appropriate norms for decision-making purposes. The authors strongly recommend that, whenever possible, comparable observation data also be recorded on a same-sexed, non-referred peer from the referral setting whom the teacher nominates or is selected randomly. If the observed behavior patterns of the two pupils are not substantially divergent, then there may be a teacher perception problem as opposed to an actual child behavior problem, or the observations may not be adequately sampling the child's behavior.

Rationale for the SSBD Screening System

The SSBD screening and identification procedure described in the Overview is based upon seven assumptions.

1. Teachers, as a rule, are much more likely to refer pupils with aversive, externalizing behavior disorders than they are to refer those with less aversive or non-aversive internalizing disorders. Teachers rarely refer pupils with internalizing problems and frequently underrefer pupils with externalizing problems who could benefit from specialized assessments and interventions.
2. Teacher judgment and appraisal of child behavior is a valid, accurate, cost-effective and greatly underutilized resource in the screening-identification of the full range of SBD children in the school setting. However, teacher supplied information is also underutilized in child study team processes.
3. Relatively undemanding screening-identification procedures can be implemented in school settings that (a) take full advantage of the numerous opportunities teachers have to evaluate and make judgments about pupil behavior under different conditions, (b) require teachers to evaluate pupils in relation to the **full range** of behavior disorders occurring in the school setting, (c) require the teacher to systematically screen each pupil enrolled in his/her class and (d) provide an equal opportunity for pupils to be identified for both externalizing and internalizing types of behavior disorders.
4. A combination of teacher rankings/ratings and direct observations are necessary to adequately assess child behavior for the purposes of screening, identification and determining eligibility. In this context, it is important to obtain teacher assessments of both adaptive behavioral competencies and maladaptive social behavior(s) that disrupt behavioral-social adjustments.
5. Academic engaged time and child social behavior on the playground are important indicators, respectively, of the two major behavioral adjustments children are expected to make in school. These are **teacher-related** adjustment within a class-

room context and **peer-related** adjustment within free-play settings, e.g., playground (Walker, McConnell, & Clarke, 1985).

6. Externalizing and internalizing dimensions encompass almost all of the behavior disorders that are commonly observed in school.
7. Early identification of children exhibiting both externalizing and internalizing behavior problems and disorders is of crucial importance, since numerous studies document the long term stability of maladaptive behavior that involves either social withdrawal, aggression or conduct disorders (see Parker & Asher, 1987; Robbins, 1966; Roff, Sells, & Golden, 1972; Wal-drop & Halverson, 1975). Follow-up studies have shown that elementary-age school children who are rejected by their peers on sociometric instruments tend to have significant mental health problems up to 13 years later (Cowan, Pederson, Babig-ian, Izzo, & Trost, 1973).

Until the last decade, there was a general professional consensus that teacher judgment was not particularly valid or useful in making decisions about child behavior. This was largely due to four decades of research that showed teacher judgments regarding child behavior and performance attributes relevant to school suc-cess to be **negatively** correlated with the equivalent judgments of clinicians (Walker, 1982). However, when teacher judgment of child behavior and performance is validated against external ac-curacy standards or criteria such as achievement, direct observa-tions and sociometric ratings, it has proved to be highly accurate and very cost-effective (see Nelson, 1971; Boldstad, 1974; Green-wood, Walker, Todd, & Hops, 1979; Lakin, 1982; Schaefer, 1982; Gresham, 1986).

Except in relatively rare but notable cases (see Kirschenbaum, Marsh, & Devage, 1977), teacher judgment has not been used systematically in mass screening systems to identify at-risk chil-dren. Reports of such mass screening efforts in relation to child behavior disorders have also been conspicuous by their relative absence in the professional literature. Without systematic, mass screening efforts of the type proposed herein, the SBD pupil popu-lation will continue to be greatly underserved in school settings because of their relative inability to access needed evaluation and intervention services.

It is extremely important that teacher judgment be supplemented with direct observations of the target child's behavioral adjustment in classroom and playground settings. SBD pupils charac-

teristically experience great difficulties in these two adjustment areas, and deficient performance within them is often indicative of more serious problems. In this regard, the system described herein is not intended to replace, but simply to augment, the data-collection and decision-making processes currently in use by child study teams in school districts.

The major advantages of the screening-identification model proposed herein are that it

- requires the teacher to evaluate each pupil in his/her classroom in relation to his/her at-risk status for behavior problems/disorders,
- provides each pupil with an equal chance to be identified for externalizing and internalizing behavior problems,
- combines teacher rankings/ratings and direct observation data in the appraisal of child behavior, and
- represents a systematic assessment procedure that provides teachers with uniform behavioral standards (e.g., externalizing and internalizing behavioral profiles) for use in evaluating and rank ordering child behavior.

The SSBD has an extensive national, normative data base on its Stage Two and Three measures.

Instrument Development Procedures

Five years of research and development have been invested in the SSBD system and the measures comprising screening stages One, Two and Three. Research on the SSBD has been conducted in two phases. In phase one, developmental research efforts focussed on the initial development and testing of SSBD instruments, definitions and response formats used across the three screening stages. These efforts occurred over a 1 year period and were followed by 4 years of research and development devoted to validation and field testing in phase two. Results of these activities are described below.

Preliminary Testing

Stage One Instruments

Three separate versions of the SSBD Stage One definitions and rating formats were investigated and evaluated prior to selection of those included in the final form of the SSBD. Each prototype version was trial-tested with teachers and aides in preschool and elementary classrooms in school districts in Oregon and Washington. Three criteria were used in evaluating these prototype versions:

1. **Interrater Reliability:** The degree to which teachers with identical amounts of exposure to the same pupils agree in their rank orderings of them on externalizing and internalizing behavioral dimensions;
2. **Test-retest Reliability:** The extent to which teacher rankings of pupils are stable over time; and
3. **Sensitivity:** The accuracy of the procedures in identifying pupils in regular classrooms who had been previously certified by a child study team as having behavioral disorders.

These criteria guided revisions of the SSBD Stage One instruments and procedures during the development process. Results of the testing procedures follow.

INTERRATER AGREEMENT: Initial testing of the first prototype version of the Stage One definitions and rank ordering procedures yielded Spearman rank order correlations among pairs of teachers, and teachers and aides, that ranged from .60 to .94 for the externalizing dimension and from .35 to .72 for the internalizing dimension. Although these agreement levels were promising, they were not sufficiently high to achieve the authors' Stage One goal of reliably identifying pupils potentially at risk for externalizing and internalizing behavior disorders. Consequently, the Stage One procedures were revised to achieve greater behavioral specificity in the externalizing and internalizing definitions and simplify the ranking procedure.

The revised version of the Stage One procedures appeared to improve interrater agreement for the externalizing dimension but reduced it for the internalizing dimension. Spearman *rhos*, computed for two teachers and an aide on the externalizing dimension, ranged from .89 to .99; on the internalizing dimension, however, the range was from .11 to .28. The internalizing *rhos* and feedback from participating teachers indicated that the internalizing definition was still ambiguous and lacked sufficient clarity for effective use.

Following this phase, the internalizing definition was rewritten a second time to provide additional behavioral specificity. This version of the Stage One procedures was trial tested using eight pairs of teachers and teachers and aides. Noticeable improvements in agreement levels were obtained. Spearman *rhos* for participating teachers across the two sites ranged from .89 to .94 for the externalizing dimension and from .82 to .90 for the internalizing dimension. The agreement levels achieved were considered acceptable for the achievement of Stage One screening goals.

TEST-RETEST RELIABILITY: A series of studies was conducted also in the Oregon and Washington sites on the temporal stability of the revised version of the Stage One procedures. Ten teachers participated in these studies and temporal interval lengths ranged from 10 days to 1 month. Test-retest estimates over these time intervals ranged from .81 to .88 for the externalizing dimension and from .74 to .79 for the internalizing dimension. These estimates, in the authors' view, met acceptable standards of temporal stability.

SENSITIVITY: To test the sensitivity of the Stage One procedures, nine regular teachers of kindergarten through the sixth grade were identified in whose classrooms 10 certified pupils with behavioral disorders (BD) had been placed previously. These

teachers were not informed of the purpose of the study but were asked simply to complete the Stage One ranking procedures using all the pupils enrolled in their classrooms. It was assumed that if the SSBD were sensitive to behavioral differences among pupils enrolled in least restrictive environment (LRE) settings, then previously certified BD pupils would be ranked high, relative to other pupils, on the Stage One externalizing and internalizing behavioral dimensions. This proved to be the case. The Stage One procedures identified 9 of the 10 BD pupils as being within the highest three ranks on the externalizing dimension; the remaining pupil was ranked fifth on the internalizing dimension.

Stage Two Instruments

The SSBD Stage Two instruments (critical events index and combined frequency index of adaptive and maladaptive behavior) were developed from prototype item lists contributed by Walker and his colleagues (Hersh & Walker, 1983; Walker, 1982; Walker, Reavis, Rhode & Jenson, 1985). These items had been trial tested extensively, refined and socially validated by both regular and special education teachers as measures of teacher behavioral standards and child behavioral status (Walker, 1986; Walker & Rankin, 1983). Additional items were included in the CEI prototype item list that were derived from measures of externalizing and internalizing dimensions on the *Achenbach Child Behavior Checklist* (Achenbach & Edelbrock, 1979). These item lists were informally trial tested in the Oregon site using a sample of 15 cooperating elementary teachers who rated the behavioral status of randomly selected pupils on them. Feedback from teachers regarding the items and inspection of means and variances were used as a basis for revising these items.

Stage Three Instruments

The observation codes used in SSBD screening Stage Three were derived from codes developed by Walker and his colleagues for recording pupil behavior within instructional and playground settings in prior research (Walker, Hops, & Greenwood, 1984). These two codes were trial tested extensively in school settings during the 1984-85 school year. Observer training times on these codes were relatively brief. Interobserver agreement ratios were consistently in the .90 to .99 range for the *academic engaged time* (AET) code and in the .78 to .90 range for the *peer social behavior* (PSB) code during their testing and refinement.

In a related research study conducted by Shinn and his colleagues, the AET code powerfully discriminated among a group of 39

antisocial and 41 at-risk control fifth grade boys (Shinn, Ramsey, Walker, Stieber & O'Neill, 1987). The antisocial pupils averaged 70% academic engagement during structured observations while the at-risk controls averaged 83%.

Results of these instrument development procedures indicated that the SSBD measures appeared to have sufficient levels of reliability, sensitivity and content validity to justify efforts directed toward systematically investigating their psychometric characteristics and field testing the SSBD system. In 1986, the authors were awarded a 3-year field-initiated research grant from the U.S. Office of Special Education Programs to support these research efforts. This grant made it possible to study the psychometric properties of the SSBD measures extensively, to field test the SSBD system and to collect normative data on the Stage Two and Three instruments within 10 states and 20 school districts across the United States. Results of phase two of the SSBD research and development process are described in the next three sections under the headings of **Trial Testing**, **Validation**, and **Field Testing**.

Trial Testing

A year-long study, designed to trial test the instruments comprising the SSBD, was implemented during the 1985-86 school year. The study posed a number of crucial questions regarding the reliability and validity of teacher judgments and the psychometric characteristics of the instruments comprising each of the SSBD assessment stages.

The year long trial test of the SSBD within a Springfield, Oregon elementary school was designed for two purposes:

1. to evaluate the psychometric characteristics of the instruments comprising each SSBD screening stage and
2. to evaluate teacher accuracy levels in identifying, via the SSBD Stage One ranking procedures, contrasted groups of pupils (i.e., high ranked externalizers, high ranked internalizers and unranked pupils) who would be expected to behave differently from each other within instructional and free play settings.

The study also attempted to assess teachers' general acceptance of the procedures in terms of consumer satisfaction. In this regard, the authors were particularly interested in how long the Stage One and Two procedures required for implementation and their ease of use.

Subjects for this study were 18 teachers assigned to grades 1 through 5 in a cooperating elementary school located in Springfield, Oregon, and pupils enrolled in their classes ($n=454$). All 18 teachers individually completed the SSBD Stage One and Two assessment procedures, on two occasions, 31 days apart. In Stage One, teachers created two mutually exclusive lists of pupils whose characteristic behavior patterns were best represented respectively by the externalizing and internalizing behavioral definitions ($n=10$ each). Next, each teacher rank ordered the pupils within both lists in terms of the degree to which their characteristic behavior patterns matched the appropriate behavioral profile (i.e., externalizing or internalizing).

It was necessary for the pupil lists to be identical at both Stage One ranking occasions in order to assess the test-retest stability of teacher rank orderings using Spearman ρ s. Therefore, after the participating teachers had completed their time two rank orderings, the pupil membership of the externalizing ($n=10$) and internalizing ($n=10$) lists for times 1 and 2 was compared. Those teachers whose pupil lists differed from their initial list were given their original time 1 lists (in scrambled order) for the externalizing and/or internalizing behavioral dimensions and instructed to re-rank this list of pupils.

Teachers were then asked to rate the top three ranked externalizers and top three internalizers from their Stage One lists on the Stage Two critical events index and combined frequency index. These procedures were completed in the same manner at both time 1 and 2 (one month follow-up). The teacher form of the *Child Behavior Checklist* (Achenbach & Edelbrock, 1979) was also completed by the classroom teacher for the three top ranked externalizing and internalizing students in each class following completion of the second set of SSBD rankings and ratings. In addition, the Stage Two combined frequency index was completed on two students from each teacher's classroom ($n=33$) who did not appear on either the externalizing or internalizing lists in SSBD Stage One. These subjects served as normative controls for both Stage Two and Stage Three assessments.

Following completion of the time 1 and 2 teacher ranking/rating tasks, a sample of students was selected from each of the 18 classrooms for direct observation within instructional and free play settings using the SSBD Stage Three coding systems. From each classroom, parental permission was sought to observe four students: one externalizer, one internalizer, and two unselected, non-ranked students who served as controls. The externalizing

and internalizing students selected were those who had been ranked highest on these behavioral dimensions across both ranking occasions. Letters of consent were sent first to parents of the students with the highest average rankings across times 1 and 2; if consent was denied, consent was then sought for observation of the student with the second highest, average ranking. Signed permission forms were returned for 16 externalizers (8 first choices and 8 second choices) and 15 internalizers (6 first choices and 9 second choices). Parental consent was not sought for students who ranked lower than second on either the externalizing or internalizing dimensions. Thirty-three of 36 consent forms were signed and returned for the unranked control students. Thus, a total of 64 students were observed on the SSBD Stage Three instruments (i.e., 33 controls, 16 externalizers and 15 internalizers).

Each student from the three groups was observed on four occasions, twice under seatwork conditions in the regular classroom setting and twice under regular recess conditions on the playground. Observers were uninformed as to the group membership (externalizing, internalizing, or control) of any of the study subjects.

Classroom observations were 15 minutes in length and these sessions were recorded only during reading, mathematics, social studies and language periods. Whenever possible, observations were conducted during independent seatwork periods and no data were collected during teacher-led activities and classroom periods involving group unison responding, such as those used in direct instruction formats. Observers were provided with a stopwatch that was allowed to run whenever the target student was academically engaged; i.e., attending appropriately to academic materials and tasks, making appropriate motor responses, and requesting teacher assistance of an academic nature (see *SSBD Instruments and Forms Packet*). Whenever the target student was not academically engaged (e.g., disturbing others, talking out, off task, out of seat and so forth), the stopwatch was stopped and remained off until the student resumed being academically engaged.

Playground observations were scheduled for 15 minutes in length but were sometimes shorter, as recess periods did not always last for this length of time. Observations were conducted under regular recess conditions only; coding did not take place during playground activities that were actively led or controlled by an adult. Observers coded the target student's playground social behavior according to the following guidelines.

- Only one code category could be recorded during any given observation interval.
- The category of social engagement overrode all other categories. If any social engagement was observed, the subject's behavior was coded as socially engaged (SE) for that interval.
- If the target student changed activities during an interval, the activity that occurred during most of the interval was coded.
- All other code categories overrode the *no codeable* response (NC) category in the recording process. NC was coded only if no other category could be determined.
- The student's behavior was coded as negative if any negative behavior occurred during the interval.

Five graduate student observers were trained on the SSBD Stage Three observation codes by the authors' colleagues. Each observer received from 3 1/2 to 5 hours of direct, supervised training distributed across the classroom and playground codes. The first three training sessions occurred in a simulation training setting where observers practiced recording while viewing videotapes of classroom and playground behavior. The final two training sessions occurred in naturalistic classroom and playground settings.

Reliability criteria for the termination of training were two consecutive sessions of a minimum of 90% agreement on the AET code and two consecutive sessions of a minimum of 70% per session agreement, with a mean of 80% or greater agreement on the PSB code. Observer agreement for the AET code was calculated by dividing the larger amount of time on the stopwatch recorded by one observer into the smaller amount recorded by the other observer and multiplying by 100. Agreement on the playground code was determined by dividing the number of intervals, in which there was complete agreement among the observer pair, by the total number of intervals observed and multiplying by 100.

A total of 256 observations was completed in classroom and playground settings on students assessed in Stage Three. Reliability checks were conducted by a colleague who served as the observer trainer/calibrator during 40 of these observation sessions (15.6% of total observations). The five observers conducted a total of 224 observation sessions while the trainer/calibrator conducted the remaining 32.

Results for the SSBD trial test are described below by each assessment stage. Correlations are reported between selected Stage Two and Three measures and the Achenbach Child Behavior Checklist

(CBC). Further, additional analyses are reported that assess the combined effects of Stage Two and Three measures in correctly classifying students assigned to the three subject groups (externalizers, internalizers, controls) by teacher rankings in SSBD Stage One. Finally, score differences for males and females across the three subject groups are reported on selected Stage Two and Three measures.

Stage One Instruments

The gender ratio of students nominated by participating teachers to form the externalizing and internalizing groups differed markedly. For example, at ranking time 1, there were 46 males and 8 females in the externalizing group and 27 males and 27 females, respectively, in the internalizing group. These proportions were nearly identical for the time 2 ranking occasion, with 45 males and 9 females in the externalizing group and 25 males and 29 females in the internalizing group.

The test-retest stability of teacher rankings was assessed in two ways. First, stability was measured by determining the percentage of students who were placed into the same subject groupings (externalizing, internalizing) by their teachers on the two ranking occasions. A statistically significant relationship between teachers' classifications of students on the externalizing and internalizing behavioral dimensions across ranking occasions was obtained. An analysis of the proportions of the identical students comprising these subject groups from time 1 to time 2 exceeded chance expectations. Results indicated that of the 168 students who were classified by teachers as externalizers at time 1, 130 or 77% were so classified one month later. Using a chi square analysis, this result was significant at ($p < .001$). Further, of the 51 students ranked among the top three externalizers by each teacher at time 1, 35 or 69% also were ranked in the top three at ranking time 2. For the internalizers, 132 of 165 or 80% were classified as members of the same group on both ranking occasions ($p < .001$). A similar proportion of students (69%) ranked in the top three internalizers across the two ranking occasions.

The second method of assessing the stability of teacher rankings in Stage One involved computing Spearman Rank Order coefficients (*rhos*) between the time 1 and 2 data sets for each teacher. This analysis produced 34 *rho* coefficients (one classroom was excluded from this analysis because the teacher changed between the two data collection occasions). Across the 17 remaining teachers, these *rho* coefficients ranged from .33 to .98 for the external-

izing dimension and averaged .76; for the internalizing dimension, the range was from .45 to .94 and averaged .74. Table 1 below contains test-retest *rhos* over a 1-month period for individual teachers on the externalizing and internalizing dimensions.

Table 1 Test-Retest Stability Coefficients for Individual Teachers on the Stage One Rank Ordering Procedures		
Teacher	Externalizing Dimension	Internalizing Dimension
1	.81	.73
2	.78	.66
3	.82	.74
4	.67	.87
5	.89	.73
6	.59	.82
7	.92	.57
8	.49	.70
9	.96	.81
10	.83	.72
11	.77	.94
12	.73	.78
13	.87	.45
14	.72	.69
15	.84	.87
16	.98	.76
17	.33	.67

Only two teachers on the externalizing dimension and one teacher on the internalizing dimension had stability coefficients of less than .50 for their rank orderings of students over a 1-month period. Some teachers had substantial discrepancies in their stability coefficients between the externalizing and internalizing dimensions with one dimension being lower or higher than the other. However, there was no systematic pattern to such discrepancies.

Stage Two Instruments

The stability of the Combined Frequency Index (CFI) adaptive and maladaptive teacher ratings was assessed across rating occasions for the three highest ranked students, respectively, on the externalizing and internalizing lists. Internal consistency of the scales was assessed at both rating time points. These analyses were not conducted for the Critical Events Index due to the scoring system used (1 or 0) and to the extremely low frequencies of positively checked events for all three student groups.

Pearson correlations were computed for the top ranked externalizers and top ranked internalizers in order to assess the stability of teacher ratings over a 1-month period. Students in the externalizing and internalizing groups were combined for this analysis. The resulting correlations were .88 for the adaptive behavior scale and .83 for the maladaptive scale between the time 1 and 2 ratings. These correlations may be inflated, however, due to the combined influence of sex, grade and group membership factors, and should be interpreted cautiously. An inspection of the raw data for the two scales indicated a normal distribution for the adaptive scale; for the maladaptive scale, there was a generally normal distribution with a slightly positive skew.

Internal consistency analyses (coefficient alpha) were conducted on both CFI scales. For the adaptive scale, alpha was .85 and .88 respectively, for the two rating occasions. For the maladaptive scale, the comparable figures were .82 and .87.

Item analyses were conducted on the adaptive and maladaptive rating scales to determine which items correlated positively with total scale scores. Table 2 presents item-total correlations for the adaptive and maladaptive scales across the time 1 and 2 rating occasions.

Across rating occasions and scales, the item total correlations ranged from -.241 to .747. The deletion of one item each in the adaptive and maladaptive scales, respectively, would have increased alpha; deletion of any other items would have either lowered alpha or left it unchanged. One item each in the CFI adaptive and maladaptive rating scales were subsequently revised to improve their clarity and ratability.

Table 2					
Item-Total Correlations for the Stage Two Behavior Scale Across Time 1 and 2 Rating Occasions					
ADAPTIVE BEHAVIOR			MALADAPTIVE BEHAVIOR		
Item	Time 1	Time 2	Item	Time 1	Time 2
1	.663	.670	1	.637	.684
2	.679	.666	2	-.241	-.116
3	.589	.589	3	.624	.687
4	.478	.662	4	.570	.567
5	.638	.699	5	.686	.865
6	.623	.745	6	.604	.615
7	.458	.687	7	.599	.747
8	.677	.699	8	.711	.686
9	.669	.501	9	.171	.222
10	.160	.267	10	.653	.699
11	.613	.721	11	.542	.589
12	.059	.019			

Table 3 contains means and standard deviations for the three subject groups on the Stage Two measures for the time 2 rating occasion. Data on the Stage Two rating scales for all three subject groups, controls included, were recorded only at rating time 2.

Table 3					
Means, Standard Deviations, and ANOVAs for the Three Subject Groups on the Stage Two Instruments					
Variable	$\bar{x}$ for Extern. sd for Extern.	$\bar{x}$ for Intern. sd for Intern.	$\bar{x}$ for Controls sd for Controls	F Ratio	p Value
Adaptive Behavior Rating Scale	36.38 6.16	44.50 7.69	54.68 4.37	40.56	0.0001
Maladaptive Behavior Rating Scale	29.61 6.90	18.16 4.83	13.71 3.30	50.90	0.0001
Critical Events Index					
$\bar{x}$	1.72	1.57			
Range	0-6	0-5			

The mean differences on the CFI adaptive and maladaptive scales among the three subject groups were highly significant. These differences were also in the predicted direction with controls, internalizers and externalizers rated in order as most adaptive and least maladaptive, respectively.

The incidence of positive occurrences on the two SSBD Critical Events Indices was extremely low for both the externalizing and internalizing subject groups (see Table 3). A Critical Events Index was not completed by participating teachers for control subjects.

Correlations were computed between adaptive and maladaptive rating scales and the externalizing and internalizing subscales of the *Achenbach Child Behavior Checklist* (CBC) in order to assess the concurrent validity of the Stage Two instruments. For the adaptive behavior rating scale, the correlations with the CBC externalizing scale at rating times 1 and 2 were $-.63$ and $-.68$ ($p < .001$); for the maladaptive rating scale, these correlations were $.81$ and $.77$ ($p < .001$). Correlations between the SSBD Adaptive scale and the CBC internalizing scale were $.22$ and $.01$, respectively, for the time 1 and 2 ratings; correlations were not computed between the CBC internalizing scale and the SSBD maladaptive scale due to the behavioral content differences between these two scales. Neither of the correlations with the internalizing scale was significantly different from zero.

Stage Three Instruments

Of the 64 students observed in Stage Three, there were 16 externalizers, 15 internalizers, and 33 controls. Fourteen were in first grade, 16 were in second grade, 11 were in third grade, 13 were in fourth grade, and 10 were fifth graders. There were 36 males and 28 females. Again, there were gender proportion differences by subject group. The 16 externalizers consisted of 12 males and 4 females; the 15 internalizers consisted of 8 males and 7 females. Controls consisted of 16 males and 17 females.

Reliability estimates were calculated on the AET and PSB codes by computing interobserver agreement coefficients between the observer trainer/calibrator and each study observer. The mean agreement level for the 19 AET reliability checks was $.96$ with a range from $.86$ to 1.00 . The mean agreement level for the 21 reliability checks on the PSB code was $.84$ and ranged from $.65$ to 1.00 .

Table 4 presents means and standard deviations on measures derived from the AET and PSB observation coding systems. Significance levels for mean differences among the subject groups are also reported for ANOVAs conducted on each measure.

Table 4

Means, Standard Deviations, and ANOVAs for the Three Subject Groups on the Stage Three Classroom and Playground Observation Measures

Variable	Externalizer		Internalizer		Controls		F	p Value
	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd		
Academic Engaged Time (AET)	53.88	16.53	68.20	13.25	71.56	11.87	9.61	0.0002
Socially Engaged (SE)	28.22	19.85	28.36	19.51	39.25	20.78	2.34	0.1049
Socially Involved (SI)	7.96	6.63	9.63	9.75	13.86	11.36	2.16	0.1233
Parallel Play (PLP)	21.09	19.34	25.63	22.34	23.38	16.64	.22	0.7971
Participation (P)	31.53	30.54	13.40	25.15	18.86	22.81	2.15	0.1250
Alone (A)	13.70	15.26	20.66	27.95	5.87	9.69	4.16	0.0203
No Code (NC)	.59	1.50	.93	1.48	.84	1.56		
Social Interaction (SE & SI)	35.69	23.77	37.80	26.81	49.24	24.19	2.08	0.1335
Positive Social Interaction	24.62	19.38	36.00	25.03	45.33	22.90	4.59	0.0139
Negative Social Interaction	11.56	12.47	1.67	2.67	4.80	6.71	6.43	0.0029
Positive Behavior	54.91	21.59	45.28	32.15	62.95	18.15	3.14	0.0504
Negative Behavior	13.18	13.33	1.70	2.74	6.19	7.18	7.27	0.0015

Table 4 indicates that the following measures discriminated between the three subject groups:

- Academic Engaged Time,
- Alone,
- Positive Social Interaction,
- Negative Social Interaction,
- Total Positive Behavior, and
- Total Negative Behavior.

These observational measures were also correlated with the Achenbach CBC externalizing and internalizing scales. Three observational measures correlated significantly with the CBC externalizing scale. These were (a) Academic Engaged Time; $-.42$ ($p < .01$); (b) Negative Social Interaction; $.29$ ($p < .05$); and (c) Positive Social Interaction; $-.35$ ($p < .03$). None of the SSBD Stage Three measures correlated significantly with the CBC internalizing scale.

Discriminating Externalizers, Internalizers and Controls

The Scheffé procedure for the analysis of mean differences was applied to those Stage Two and Three variables for which significant F ratio's were obtained. Table 5 lists variables on which at least one pair of subject groups differed at the .05 level or beyond.

The results in Table 5 indicate that externalizers were rated by teachers as engaging in significantly less adaptive behavior than both internalizers and controls; were rated as significantly more maladaptive than either internalizers or controls; spent less time academically engaged than internalizers and controls; spent less time in positive interaction than controls; and spent more time in negative interaction than internalizers and controls. Internalizers, in contrast, engaged in significantly less adaptive behavior than controls; produced significantly more maladaptive behavior than controls; and spent significantly more time alone than controls.

Table 5	
Scheffé Analysis of Mean Differences on Discriminating SSBD Stage Two and Three Variables	
PAIRS OF SUBJECT GROUPS SIGNIFICANTLY DIFFERENT AT THE .05 LEVEL (Group Means in Parentheses)	
Adaptive Behavior Rating Scale	Externalizers (36.48) and Controls (54.68) Internalizers (44.50) and Controls (54.68) Externalizers (36.38) and Internalizers (44.50)
Maladaptive Behavior Rating Scale	Externalizers (29.61) and Controls (13.71) Internalizers (18.16) and Controls (13.71) Externalizers (29.61) and Internalizers (18.16)
Academic Engaged Time (AET)	Externalizers (53.87) and Controls (71.56) Externalizers (53.87) and Internalizers (69.20)
Alone	Internalizers (20.66) and Controls (5.87)
Positive Social Interaction	Externalizers (24.63) and Controls (45.33)
Negative Social Interaction	Externalizers (13.18) and Internalizers (45.33) Externalizers (13.18) and Internalizers (1.7)

Efficiency in Classifying Subject Groups

A discriminant function analysis was conducted to determine the number of study subjects that could be correctly classified into their respective subject groups (externalizers, internalizers, controls) on the basis of their scores on SSBD Stage Two and Three measures. The Stage Two and Three variables entered in this analysis were Adaptive Behavior Scale, Maladaptive Behavior Scale, Academic Engaged Time, Social Engagement, Social Involvement, Parallel Play, Participation, Alone, Positive Social Interaction, and Negative Social Interaction. Results of the discriminant analysis indicated that 89.47% of the study subjects were correctly classified into their respective subject groups on the basis of their SSBD Stage Two and Three variable scores. Of the 13 externalizers included in this analysis, one was misclassified as an internalizing student. Three of the 12 internalizers were misclassified as controls and two of the 30 controls were misclassified, one each as an externalizer and an internalizer. Incomplete data on three externalizers and three internalizers on the Stage Two and Three measures led to their deletion from this analysis.

It should be noted that with three groups, 55 subjects and 10 discriminating variables, the subjects to variables ratio was quite low in this analysis. Further, the achieved 89.47% correct classification rate was not adjusted for the prior probabilities of group membership. There were approximately twice as many controls as there were externalizers and internalizers in this analysis.

A multiple regression analysis was conducted to determine the extent to which scores on SSBD variables which discriminated the subject groups could predict group membership. The six variables that discriminated the three subject groups were entered into this analysis. The multiple correlation (R) between group membership and these six variables was .849. In combination, these variables accounted for approximately 72% of the variance between groups. Group membership was dummy coded in this analysis.

A simultaneous regression analysis was also conducted to determine the relative weights of the variables entered in the equation, thereby permitting an analysis of which variables were most effective in predicting group membership. Table 6 shows the correlations between each predictor variable and group membership and corresponding beta weights.

Table 6 Correlations Between Predictor Variables and Group Membership and Corresponding Beta Weights		
Variable	Group Membership	Beta Weights
Maladaptive Behavior Rating Scale	-.7889	-.4193
Adaptive Behavior Rating Scale	.7736	.3478
Alone	-.3030	-.1933
Academic Engaged Time	.4520	.1116
Positive Social Interaction	.3526	.0385
Negative Social Interaction	-.2381	.0432

These results indicate that virtually all of the variance in group membership could be accounted for by Maladaptive Behavior Ratings, Adaptive Behavior Ratings, Alone, and Academic Engaged Time.

Sex Differences (Stages Two and Three)

An analysis was conducted to determine which of the SSBD Stage Two and Three variables registered sex differences across the three subject groups. Statistically significant mean differences among males and females were obtained for three of the playground measures (Social Engagement, Social Involvement and Participation in structured games and activities) and teacher ratings on the Adaptive Behavior Rating Scale in Stage Two. The social engagement and involvement variables are measures of peer to peer social interactions in free play contexts. Table 7 presents means and standard deviations on these variables across the three subject groups by sex of student.

Table 7 Sex Differences on SSBD Stage Two and Three Variables for Combined Subject Groups					
	Females (n=28)			Males (n=36)	
	$\bar{x}$	sd		$\bar{x}$	sd
Social Engagement	45.21	17.06	($p < .0001$)	25.18	16.88
Social Involvement	1.52	10.44	($p < .0296$)	6.61	7.05
Participation	9.65	12.63	($p < .0020$)	29.39	29.55
Adaptive Behavior Scale Ratings	51.49	5.81	($p < .0281$)	45.71	7.27

The relatively small numbers of subjects prohibited analysis of sex differences within each of the subject groups.

Intercorrelations Among Stage Two and Three Measures

Since Stage Two and Three variables were treated as independent measures in the analyses reported above, the authors examined the intercorrelations among these variables in order to assess the extent of their covariation. Table 8 shows intercorrelations among the Stage Two and Three measures reported for the SSBD trial test.

Table 8										
Correlation Matrix for Stage Two and Three Variables										
	ADAP	MALADAP	AET	SE	SI	PARTIC	PLP	ALONE	PSOCINT	NSOCINT
ADAP	1.00									
MALADAP	-.60	1.00								
AET	.02	-.21	1.00							
SE	.12	.15	-.155	1.00						
SI	.14	.00	.05	.27	1.00					
PARTIC	-.10	-.18	.24	-.40	-.44	1.00				
PLP	-.27	.10	-.13	-.25	-.09	-.40	1.00			
ALONE	.21	-.16	.03	-.26	-.17	-.05	-.20	1.00		
PSOCINT	.20	.10	-.15	.79	.60	-.55	-.21	-.34	1.00	
NSOCINT	-.18	.15	-.02	.17	.24	-.21	.08	-.11	-.03	1.00

Inspection of the correlation matrix in Table 8 indicates the intercorrelations among these variables were in the low to moderate range. The highest correlations were between teacher ratings of adaptive and maladaptive student behavior ($r = -.60$) and between positive social interaction and the SE, SI and Participation code categories ($r = .79, .60, -.55$). Correlations of this magnitude among these variables are not unexpected since (a) teachers rated the same subjects on both the adaptive and maladaptive item lists, (b) the positive social interaction category subsumes both the SE and SI codes, and (c) social interaction opportunities are severely restricted during structured playground activities during which the participation category was coded. However, statistical significance for group differences on any one of these moderately correlated measures could predict similar outcomes on the others.

Overall, results of the initial trial testing of the SSBD were encouraging. Estimates of reliabilities for the instruments comprising each of the three SSBD screening stages were judged acceptable for their assessment purposes. Both the test-retest stability of teacher rankings of students on the final form of the Stage One procedures and interrater agreement levels among pairs of teachers and/or teachers and aides, were satisfactory and provided a foundation for future research on the system. The accuracy of the teachers' classification of students, as indicated by the consistency of students' group membership (i.e., externalizing, internalizing) from time 1 to time 2, was substantial.

However, while overall test-retest *rhos* for the Stage One ranking dimensions averaged .75, several teachers were in the low .30s and .40s. Similarly, some teachers were not as consistent as others in their accuracy of assigned group membership for students from time 1 to time 2. Overall, however, the Stage One procedures allow teachers to identify behavior patterns that remain quite stable over periods of one month or less—a finding that has important implications for the referral of students to special education and related services.

Teachers participating in this initial trial testing of the SSBD, via their Stage One ranking tasks, also validated findings from the professional literature on the differential representation of sex differences within externalizing and internalizing behavior patterns and disorders. In this study, the ratio of boys to girls in the teacher-selected, Stage One sample was nearly six to one for members of the externalizing group. For members of the internalizing group, this ratio was 50-50.

At Stage Two, the CFI adaptive and maladaptive scales demonstrated acceptable internal consistency and short-term stability, with all correlations in the mid to high .80s. As noted earlier, however, these coefficients should be interpreted cautiously. Item-total correlations for these scales were, with the exception of one item on each scale, adequate. Coefficient alpha for the two scales was in the mid to high .80s and would be improved with the deletion of these items.

The Stage Three observation codes proved to be highly reliable and were sensitive in discriminating the three subject groups in both classroom and playground settings. The average interobserver agreement level for the AET code was .96 during the study. The PSB code was somewhat less reliable than the AET, perhaps because of the greater complexity of peer social behavior and the uncontrolled stimulus conditions of playground settings. However,

this code demonstrated an acceptable interobserver agreement level of .84 in this trial test.

The direction of the observed behavioral differences for the externalizing, internalizing and control subjects was consistent with the authors' expectations based on empirical evidence presented in the literature. Teachers' ability to identify intact groups of students, using the Stage One ranking procedures, and the clear differentiation of these groups on teacher ratings and direct observational measures recorded by professionally trained observers, serves to validate both teacher judgment and the viability of the SSBD approach.

Two forms of validity were estimated on the SSBD in this study (i.e., **concurrent** and **construct**). Concurrent validity was assessed by correlating selected SSBD measures with the externalizing scale of the Achenbach CBC. The validity coefficients between the Stage Two rating scales and the CBC externalizing scale were in the moderate to high range; the SSBD adaptive scale did not correlate significantly with the CBC internalizing scale. Coefficients between the CBC and selected Stage Three variables were statistically significant on three of the observational measures.

The construct validity of the SSBD rests upon the bi-polar, externalizing-internalizing behavioral classification of Achenbach (1978) and Ross (1980) and the assumption that it is possible to reliably differentiate externalizers and internalizers from each other, and both behavior patterns from normal control students. The discriminant function analysis conducted in this study addressed this question. Collectively, the Stage Two and Three SSBD measures were efficient in correctly classifying students whose group membership was based on teacher assignments in Stage One. As noted, these measures correctly classified 89.47% of the study subjects. Four variables in combination accounted for 72% of the variance in determining this group membership (i.e., Maladaptive Behavior ratings, Adaptive Behavior ratings, Academic Engaged Time, and Alone). This level of overall precision in separating students into identifiable groups speaks well for the continued development of the SSBD.

The results of the initial trial testing of the SSBD system and its component measures were quite encouraging and provided a basis for the design of a series of more extensive validation studies designed to investigate a range of validity types and psychometric characteristics of the SSBD instruments. Descriptions of and results from these studies are reported in the next section.

Validation Studies of the SSBD

An extensive series of validation studies have been conducted on the SSBD to date. Results of these studies are reported in Walker, Severson, Todis, Block-Pedego, Williams, Haring, and Barckley (1990); Todis, Severson, and Walker, (1990); Severson, Walker, Barckley, Block-Pedego, Todis, and Rankin (in press).

Results from these studies and others are described in this section that relate to the following types of reliability and validity: **Reliability** (test-retest, internal consistency and interrater); **Validity** (item, factorial, concurrent, discriminant, criterion related, predictive and construct). The remainder of this section describes findings that provide empirical support for each of these reliability and validity types.

Reliability

Test-Retest

Walker, Severson, Todis, Block-Pedego, Williams, Haring, and Barckley (1990) investigated the test-retest stability of the SSBD Stage One and Two measures over a 1-month period. Forty teachers in the elementary age range completed the SSBD Stage One and Two procedures on two occasions separated by 31 days. The mean test-retest rank order correlations (*rhos*) on the externalizing and internalizing behavioral profiles ($n=10$ students each) were .79 and .72, respectively. Individual teacher rank order correlations ranged from -.16 to .96 on the externalizing dimension and from -.07 to .92 on the internalizing dimension. Eighty-eight percent of the 40 participating teachers had test-retest *rhos* greater than .45. In a reanalysis of these data, the authors excluded two teachers from the sample whose *rhos* were negative (-.16 and -.07) and treated them as outliers. The average externalizing *rho* improved to .88 and the average internalizing *rho* improved to .74 in this reanalysis.

Pearson correlations were computed for the Stage Two measures from time 1 to time 2. For the Critical Events Index, the resulting *r* was .81; for the CFI adaptive behavior rating scale, the *r* was .90; and for the maladaptive behavior rating scale, the *r* was .87. These correlations were all statistically significant at ($p < .01$). Overall, these results suggest that teachers are capable of making rela-

tively stable judgments regarding child behavioral attributes using the Stage One and Two screening instruments.

Internal Consistency

Walker, Severson, Stiller, Williams, Haring, Shinn, and Todis (1988) calculated coefficient Alpha to estimate the internal consistency of the CFI adaptive and maladaptive Stage Two behavior rating scales. Using a sample of 18 teachers, each of whom rated 8 students in their classes on two occasions (i.e., the three highest ranked externalizers and internalizers and two non-ranked comparison students), coefficient Alpha was derived for these two scales at two time points separated by one month. For the adaptive scale, Alpha was .85 and .88, respectively, across the two rating occasions; for the maladaptive scale, these coefficients were .82 and .87.

Coefficient Alpha was also calculated for the SSBD national standardization sample of approximately 4500 cases on the Stage Two instruments. The resulting Alpha coefficients were .94 for the adaptive behavior rating scale and .92 for the maladaptive behavior rating scale. The average item intercorrelations for these two scales were .59 and .49, respectively. Coefficient Alpha was not calculated for the Critical Events Index because of the divergent behavioral content (externalizing and internalizing) sampled by the items comprising this instrument.

Interrater

The authors extensively investigated the interrater agreement of the SSBD Stage One ranking procedures in the process of developing and refining the externalizing and internalizing behavioral profiles. (Results of these activities were described earlier under Instrument Development Procedures.) Interrater agreement levels have not as yet been established for the Stage Two measures. Interrater agreement, however, was the primary criterion used to develop, evaluate and revise the Stage Three observation codes. The Academic Engaged Time (AET) code uses a one-paragraph definition and a stopwatch duration recording procedure to estimate the proportion of time spent academically engaged (see SSBD AET Coding Manual). Interrater agreement indices were calculated by dividing the smaller amount of stopwatch recorded time from one observer by the larger amount recorded by the second observer and multiplying by 100. These ratios consistently have ranged between 90 and 100% and have averaged approximately 95% in SSBD studies conducted to date. Similarly, interrater agreement ratios have been calculated for the partial interval Peer

Social Behavior (PSB) (see *SSBD Observation Manual*). However, since the PSB is a five-category code with a 10-second recording interval, interrater agreement among pairs of observers was determined by dividing the number of recording intervals on which there was complete agreement by the total number of intervals recorded and multiplying by 100. Interrater agreement ratios for the PSB code have consistently averaged 85% and have generally ranged between 80 and 90%. (**NOTE:** The PSB was originally a six-category code; however, the categories of social engagement and social involvement were combined into one code category—social engagement—because of their overlapping content and failure to differentially discriminate among subject groups).

Validity

As noted earlier, the following types of validity have been estimated to date on the SSBD system: item, factorial, concurrent, discriminant, criterion related, predictive and construct. Evidence in support of each of these validity types is described in this section.

Item Validity

Item validity was estimated on the Stage Two adaptive and maladaptive behavior rating scales by calculating item-total correlations using the SSBD standardization sample ($n=4500$). Table 9 contains corrected item-total correlations for the adaptive and maladaptive scale items.

These correlations ranged from .64 to .81 for the adaptive scale and from .32 to .83 for the maladaptive scale. Item-total correlations averaged .59 for the adaptive scale items and .49 for the maladaptive scale items. All items in both scales met the minimum criterion of .30 and above for acceptable item-total correlations.

Table 9 Item-Total Correlations for the Stage Two Adaptive and Maladaptive Rating Scales (n=4500)			
Adaptive Rating Scales		Maladaptive Rating Scales	
Item	Corrected Item-Total Correlation	Item	Corrected Item-Total Correlation
A1	0.79	M1	0.79
A2	0.78	M2	0.34
A3	0.75	M3	0.73
A4	0.72	M4	0.66
A5	0.64	M5	0.83
A6	0.80	M6	0.75
A7	0.72	M7	0.78
A8	0.77	M8	0.76
A9	0.77	M9	0.32
A10	0.68	M10	0.76
A11	0.81	M11	0.68
A12	0.73		
Alpha = 0.94		Alpha = 0.92	
Mean inter-item correlation = 0.59		Mean inter-item correlation = 0.49	

Factorial Analysis

A Principal Components Factor Analysis with a Varimax rotation, using SPSS-X procedures, was used to investigate the factor structure of the SSBD Stage Two adaptive and maladaptive rating scales. The items in these two scales were factor analyzed in tandem rather than separately within the two scales. This procedure, conducted on the SSBD national standardization sample, yielded seven factors with eigen values greater than one that collectively accounted for 79% of the variance. Two factors were then specified for extraction in a second order analysis. The results of this analysis, with corresponding item loadings on each of the two factors, are presented in Table 10.

Table 10
Adaptive and Maladaptive Behavior Rating Scale Factor Structure
and Item Loadings (n=4500)

ROTATED FACTOR MATRIX				
Item	Factor 1 Teacher Related		Factor 2 Peer Related	
M5	0.84		-0.31	
M7	0.82		-0.28	
M8	0.82		-0.18	
M1	0.79		-0.34	
M6	0.79		-0.19	
M3	0.75		-0.25	
M10	0.75		-0.29	
A1	-0.70		0.51	
A2	-0.63		0.56	
A11	-0.63		0.59	
M11	0.61		-0.34	
M9	0.37		-0.05	
A12	-0.16		0.83	
A8	-0.24		0.81	
A10	-0.14		0.78	
A6	-0.43		0.72	
A3	-0.32		0.71	
A9	-0.38		0.70	
A4	-0.33		0.69	
A7	-0.33		0.68	
M2	0.08		-0.57	
M4	0.49		-0.52	
A5	-0.48		0.50	
FACTOR SCORES				
Group	Teacher Related		Peer Related	
	x	sd	x	sd
Externalizer	0.89	0.89	-0.27	0.77
Internalizer	-0.67	0.63	-0.37	1.00
Non-Ranked	-0.36	0.36	0.99	0.54

It was expected that these two rating scales would collectively provide measures of the two primary forms of school adjustment required of all students in school settings, i.e., peer related and teacher related (Walker & Fabre, 1987). The two factors that emerged from this analysis confirmed this hypothesis. Factor one was very dominant in the overall structure and accounted for 52% of the total variance; in contrast, factor two accounted for 9%. The corresponding eigen values for these two factors were 12.11 and 2.09, respectively. Factor one consisted of scale items that define school adjustment according to adult expectations while the content of factor two seemed to focus primarily on peer relations. Table 10 lists the item factor loadings on these two factors across the adaptive and maladaptive subscale items. (See the *SSBD Instruments and Forms Packet* for descriptions of each of these items).

Factor scores were calculated for these two factors based on a sample of 1337 externalizers, 1310 internalizers, and 862 non-identified comparison students drawn from the standardization sample of 4500 cases. For factor one (adult related), these scores for externalizers, internalizers and comparison students were respectively .89, -.67, and -.36. For factor two (peer related), these scores were -.27, -.37, and .99 respectively.

Concurrent Validity

The concurrent validity of the SSBD Stage Two measures was estimated as part of a study of the SSBD system's use within resource room settings (Walker, Block-Pedego, Severson, Barckley & Todis, 1989). Teacher rating and direct observational measures were completed on a sample of 56 resource room students in the elementary age range. Six teachers and their resource room students participated in this study.

The SSBD Stage Two measures were correlated with the Walker-McConnell Scale of Social Competence and School Adjustment (Walker & McConnell, 1988) and with direct observation code measures recorded by the Classroom Adjustment Code (CAC) (Walker, Block-Pedego, McConnell, & Clarke, in press). The Walker-McConnell scale is designed for use by teachers in the K-6 grade range in rating students' social skills. The scale consists of 43 items, has three subscales, and its national standardization sample contains 1812 cases. Extensive studies of the scale's validity and reliability have been conducted by the authors and are reported in the manual for the scale.

The CAC was developed as a measure of the post social integration behavioral status of mainstreamed handicapped students in the elementary age range. The code allows for recording of three categories each of student (on task, off task, unacceptable) and teacher (feedback, reprimand, praise) behavior in both group and individual classroom contexts. (NOTE: the on-task code is the reciprocal of the off-task code category). Evidence exists for the discriminant power of the code categories in distinguishing handicapped from non-handicapped students enrolled in regular classroom settings (Walker, 1986).

Correlations between total score on the Walker-McConnell scale and total scores on the Critical Events Index and the Adaptive and Maladaptive Rating Scales were $-.57$ ($p < .001$), $.79$ ($p < .001$), and $-.44$ ($p < .001$) respectively. Correlations of this magnitude provide partial support for the concurrent validity of the SSBD Stage Two measures with a well-constructed and validated measure of teacher-rated social skills. Similarly, correlations between the three Stage Two measures and the CAC child behavior code categories of on task and unacceptable were as follows: Critical Events Index versus on task and unacceptable were $-.45$ ($p < .01$) and $.15$ ($p < .05$), respectively. These same correlations for the Adaptive Behavior Rating Scale were $.45$ ($p < .01$) and $-.16$ ($p < .05$); for the Maladaptive Behavior Rating Scale, they were $-.37$ ($p < .03$) and $.26$ ($p < .05$). (NOTE: CAC data were not recorded on teacher behavior in this study.) Though in the low to moderate range of magnitude, these correlations provide evidence that teacher ratings of students' classroom behavior are related to their actual observed behavior as recorded by independent, professionally trained observers.

Discriminant Validity

A substantial number of studies have been conducted by the authors and their colleagues investigating the discriminant validity of the SSBD system and its component measures. These studies have ranged from assessing the performance of clinical samples on selected SSBD measures to discriminant function analyses of the classification efficiency of the Stage Two and Three measures.

Walker, Severson, Todis, Block-Pedego, Williams, Haring and Barckley (1990) conducted validation and replication studies respectively on the SSBD system in Oregon and Washington field sites. In the Oregon site, 170 teachers in grades 1-5 completed the Stage One and Two measures. The three Stage Two measures were

completed by each participating teacher on the top three ranked externalizing students, the top three internalizing students and two non-ranked comparison students. ANOVAs were computed to test for subject group differences on the Stage Two measures. The resulting F ratios were as follows: Critical Events Index, $F_{2,853}=163.62$ ($p < .001$); Adaptive behavior rating scale, $F_{2,850}=500.51$ ($p < .001$); and Maladaptive behavior rating scale, $F_{2,821}=596.97$ ($p < .001$). The corresponding Omega squared coefficients for these one way ANOVAs were .28, .54, and .59 respectively. Post hoc Scheffé tests indicated that all possible pairs of mean differences among the three subject groups were significant at ($p < .01$).

In a replication of these findings, 40 regular classroom teachers in the Washington site completed SSBD Stages One and Two, resulting in ratings on 270 high ranked externalizers, high ranked internalizers and non-ranked comparison students who did not appear on either rank ordering list of 10 students each. ANOVAs were computed separately for the Critical Events Index, the Adaptive Behavior Rating Scale and the Maladaptive Behavior Rating Scale to test for between subject differences on these measures. As in the Oregon site, the Stage Two measures proved to be highly sensitive in discriminating these three subject groups. The F ratios for the Critical Events Index, the Adaptive Behavior Rating Scale and the Maladaptive Behavior Rating Scale were $F_{2,267} = 77.97$ ($p < .001$); $F_{2,267} = 152.00$ ($p < .001$); and $F_{2,267} = 214.93$ ($p < .001$), respectively. Omega squared coefficients for these analyses were .34, .47 and .56, respectively. Post hoc Scheffé tests indicated that all mean differences for the three subject groups exceeded chance expectations ($p < .05$) on each of the Stage Two instruments.

A sample of four students was selected from each of the 97 participating classrooms in the Oregon site in which Stage Three observations were conducted. These were the highest ranked externalizer, the highest ranked internalizer and two unranked comparison students (a boy and a girl). These subject groups were observed on two occasions each in academic and playground settings using the AET and PSB codes, respectively. Comparison students averaged 77% of observed time academically engaged; the corresponding figures for the internalizing and externalizing subjects were 73% and 65%. The mean differences between comparison and externalizing students and between comparison and internalizing students were significant at ($p < .01$) and ($p < .05$); the mean difference between externalizers and internalizers was not statistically significant.

Table 11 PSB Code Category and Code Category Combination Means, Standard Deviations, and Significance Tests by Subject Group (n=336)				
PSB Dependent Variable	Externalizers (n=73)	Internalizers (n=76)	Comparison (n=152)	Omega Squared
	$\bar{x}$ sd	$\bar{x}$ sd	$\bar{x}$ sd	
1 Socially Engaged (SE)	30.1 ¹ 16.8	27.4 ² 13.1	35.1 15.3	0.03
2 Socially Involved (SI)	32.9 ^{1,3} 15.6	43.9 15.3	40.9 16.2	0.05
3 Participation (P)	22.6 ¹ 28.7	7.4 ² 16.1	14.2 22.6	0.05
4 Parallel Play (PLP)	5.8 7.5	10.7 ^{2,3} 10.6	4.9 7.5	0.07
5 Alone (A)	6.1 ¹ 8.3	8.6 ² 10.0	3.5 5.5	0.06
6 No Codeable Response	1.5 1.7	1.7 3.6	1.3 2.0	—
7 Social Interaction (SE + SI)	64.7 26.4	71.5 19.5	76.0 22.2	—
8 Positive Interaction (SE + SI +)	58.8 ¹ 25.3	69.9 ³ 19.6	75.2 21.9	0.08
9 Negative Interaction (SE + SI -)	5.4 ^{1,3} 7.5	1.8 4.2	1.4 2.9	0.10
10 Total Positive Behavior (SE + SI + P) (+)	80.5 ¹ 17.2	77.2 ² 18.2	88.6 11.5	0.10
11 Total Negative Behavior (TN)	6.0 ^{1,3} 7.9	1.8 4.2	1.9 5.6	0.07
1 = Externalizers vs. Comparison Students (p<.05) 2 = Internalizers vs. Comparison Students (p<.05) 3 = Externalizers vs. Internalizers (p<.05)				

Table 11 contains means and standard deviations for the three subject groups on individual PSB code categories and on variables derived from combining selected code categories.

Statistically significant differences were obtained between one or more pairs of subject groups on all but two of these variables (i.e., no codeable response and total social interaction). Thus, both Stage Two and Three measures proved to be highly sensitive to behavioral differences among teacher nominated externalizing, internalizing and normal comparison students as reflected in both

teacher ratings and direct observations recorded in natural settings by independent, professionally trained observers.

Walker, Severson, Todis, Block-Pedego, Williams, Haring, and Barckley (1990) investigated two forms of discriminant validity for the SSBD. These were (a) the ability of the SSBD Stage Two and Three measures to correctly classify the group membership assignments of study subjects by teachers in screening Stage One, and (b) the existence of statistically significant differences on Stage Two and Three measures for first versus second ranked students identified by their teachers in SSBD Stage One. Using a discriminant function analysis procedure, these authors found that the SSBD Stage Two and Three measures correctly classified 84.69% of the three subject groups selected by their teachers in screening Stage One. In this same analysis, 142 of 150 (95%) non-ranked comparison students were correctly classified with four misclassified as externalizers and four misclassified as internalizers. Similarly, 56 of 69 (81%) externalizers were correctly classified with 4 misclassified as normal comparison students and 9 misclassified as internalizers. Finally, 51 of 75 (68%) internalizers were correctly classified, with 13 misclassified as comparison students and 11 misclassified as externalizers. Although this level of classification efficiency far exceeds chance levels, the SSBD measures were least successful in correctly classifying internalizers whose behavioral characteristics appear to have less salience for adult raters and often closely overlap with those of normal comparison students.

Independent t-tests were used to test for significant differences between Stage One first and second ranked students on the Stage Two and Three measures. For externalizers, all three Stage Two measures discriminated at ($p < .05$) while the Stage Three variables of parallel play and total positive behavior discriminated at this level for first and second ranked students. All mean differences favored the highest ranked externalizing students as predicted. For internalizing subjects, the corresponding discriminating variables were the Critical Events Index, the Adaptive Behavior Rating Scale and participation in structured games and activities. As with externalizers, these differences favored the highest ranked internalizers. These results provide empirical evidence for the sensitivity of teacher ranking judgments when using the Stage One screening procedures.

Todis, Severson and Walker (1990) investigated items on the Critical Events Index that significantly discriminated between externalizers and internalizers passing SSBD Stage Three exit criteria using two separate samples drawn from SSBD field test

sites. A total of 41 subjects (27 externalizers, 14 internalizers) enrolled in grades 1-5 from the two sites met these criteria. Nine of the 33 items of the Critical Events Index significantly discriminated between externalizers and internalizers. Table 12 contains these items along with the proportion of the two subject samples that had the item(s) checked as present by their teachers along with corresponding significance levels.

Item 8 in Table 12 approached statistical significance at ($p < .06$). Eight of these 10 items were in the predicted directions for externalizers and internalizers in terms of expected or anticipated prevalence rates. However, on two items (is teased and/or neglected by peers and demonstrates obsessive-compulsive behavior), teachers assigned higher rates to externalizers than to internalizers. Both of these items were originally judged by the authors to be more characteristic of internalizers than externalizers.

Table 12 Comparison of Frequency of Items Checked on the Critical Events Index for Externalizing and Internalizing Elementary Students Who Passed All Stages of the SSBD			
Item	Externalizers (n=27)	Internalizers (n=14)	p Value (2-tailed Fisher's Exact Test)
1. Ignores teacher reprimands	96.2%	7.7%	0.000
2. Is physically aggressive	73.1%	0%	0.000
3. Damages other's property	50.0%	0%	0.003
4. Steals	38.5%	0%	0.016
5. Uses obscene language, swears	34.6%	0%	0.018
6. Has tantrums	30.8%	0%	0.035
7. Makes lewd or obscene gestures	30.8%	0%	0.035
8. Demonstrates obsessive/compulsive behavior	38.5%	7.7%	0.060
9. Exhibits painful shyness	7.7%	84.6%	0.000
10. Is teased, neglected by peers	57.7%	30.8%	0.000

In prior research, the Critical Events Index has proved to be highly sensitive in discriminating externalizers and internalizers from non-ranked comparison students (Walker et al., in press). The results of the above study indicate that nearly a third of the items discriminated externalizers from internalizers as well using the combined sample of 41 subjects from two sites.

The SSBD Stage Two measures were completed on 106 subjects by teachers within the North Idaho Children's Home, a residential facility serving severely disturbed and/or abused children in the K-12 grade range. This facility maintains two residential programs and two day treatment programs. Elementary and middle school age students were included in the sample rated by their teachers for this study. A total of 52 subjects were rated from the regular residential population and a total of 17 subjects from the secure treatment residential program which serves severely disturbed students (e.g., homicidal, suicidal, severely depressed and so forth). For the non-residential portion of the sample, there were 20 day treatment students served by the residential facility and 17 students assigned to a community-based educational program operated by the facility staff on the campus of a cooperating college.

Table 13 contains means and standard deviations for the four subject groups on the three Stage Two measures.

Table 13 Means, Standard Deviations, and Significance Tests for Four Subject Groups of North Idaho Children's Home Residents (n=106)								
SUBJECT GROUP								
	Day Treatment (20)		Secure Treatment Unit (17)		Residential (52)		Community (17)	
	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd
Critical Events Index	5.50	3.26	9.11	3.93	5.84	4.13	6.47	4.16
Adaptive Behavior Rating Scale	3.26	0.61	3.09	0.73	3.40	0.60	3.27	0.80
Maladaptive Behavior Rating Scale	2.73	0.89	2.90	0.65	2.53	0.77	2.64	0.87

For the Critical Events Index, the entries in Table 13 represent the average number of items checked as present by the teacher; for the Adaptive and Maladaptive Rating Scales, the entries are the average item scores, on a 5-point Likert rating scale of frequency, as assigned by teachers. Separate one-way ANOVAs conducted for these three measures indicated that there were statistically significant differences among the four groups on the Critical Events Index ($F(3,102) = 3.22, p < .02$) and there were no significant differences on either the Adaptive or Maladaptive Rating Scale. A post hoc Scheffé test indicated that the means for the secure treatment ($n=17$) and regular residential ($n=52$) students were significantly different ($p < .05$); none of the other mean differences approached significance.

Chi-square analyses were conducted for the four groups on each of the 33 items comprising the Critical Events Index to identify discriminating items. Table 14 contains the results of these analyses along with average percentages of each subject group having that item checked by their teachers as present.

Table 14				
Chi-square Analysis of Critical Events Items for Four North Idaho Children's Home Subject Groups				
CRITICAL EVENT	PERCENT OF SUBJECTS HAVING ITEM CHECKED			
	Day (n=20)	Secure (n=17)	Residential (n=52)	Community (n=17)
1. Steals	70	18	25	23.5
2. Sets Fires	—	—	—	5.8
3. Vomits	5	—	7.6	5.8
4. Tantrums	60	52.9	53.8	64.7
5. Assaults Adult*	—	29.4	53.8	64.7
6. Painful Shyness	15	41.1	15.3	17.6
7. Weight Loss/Gain	10	17.6	1.9	5.8
8. Sad Affect*	30	76.4	61.5	35.2
9. Physically Aggressive	30	35.2	21.1	23.5
10. Damages Property	30	29.4	21.1	35.2
11. Obsessive-Compulsive	20	58.8	42.3	35.2
12. Nightmares	15	11.7	26.9	76.4
13. Sexual Behaviors	—	17.6	15.3	5.8
14. Self-Abusive	5	17.6	11.5	29.4
15. Seriously Injure	—	—	3.8	11.7
16. Suddenly Cries	20	32.5	13.4	35.2
17. Severe Headaches*	10	5.8	34.6	23.5
18. Suicide Thoughts	20	5.8	13.4	5.8
19. Thought Disorders*	—	58.8	23.0	23.5
20. Ignores Warnings	45	64.7	40.3	47.0
21. Lews Gestures	20	47.0	15.3	23.5
22. Physical Abuse	5	11.7	—	11.7
23. Drug Use	—	5.8	13.4	23.5
24. Sexually Abused	15	17.6	21.1	—
25. Obscene Language	45	64.7	40.3	58.8
26. Cruelty to Animals	—	5.8	1.9	—
27. Teased by Peers*	55	70.5	21.1	35.2
28. Restricted Activity *	5	41.1	5.7	11.7
29. Enuretic	5	—	9.6	—
30. Encopretic	5	11.7	3.8	—
31. Sexually Molests Children	5	17.6	5.7	—
32. Hallucinations	—	5.8	5.7	5.8
33. Lacks Interest*	5	35.2	1.9	—
*Significance at (p<.05)				

Seven of the 33 items significantly discriminated the four groups at ($p < .05$). Students in the secure treatment group had the highest prevalence rates of any of the four groups on five of the seven discriminating items. Their profiles across the 33 items of the Critical Events Index are extremely problematic and indicate very severe levels of behavioral pathology. In addition, the profiles of the other three subject groups were also highly indicative of serious behavioral adjustment problems in comparison to normal students of the same age. The sensitivity of the Critical Events Index in profiling the greater severity of the secure treatment subject group and in discriminating the other three groups from normal students provides additional evidence in support of its discriminant validity.

Eisert, Walker, Severson, and Block (1989) used the SSBD Stage One and Two measures in a study of the social competence and behavioral adjustment of a Headstart classroom of 19, four- and five-year-olds. The SSBD Stage One procedures divided the class into 9 externalizers, 5 internalizers and 5 control subjects. Teacher ratings of all 19 students on the Stage Two measures indicated that (a) subjects were not differentiated on the Critical Events Index, and (b) significant differences were found between the subject groups on both the Adaptive and Maladaptive Rating Scales. Post hoc analyses (Fisher's PLSD) indicated that both externalizers and internalizers had lower scores ($p < .05$) than controls on the adaptive scale, and externalizers had higher maladaptive scores than either controls or internalizers. The results of this study provide a partial demonstration of the SSBD's feasible use with 4- and 5-year-old preschool children.

As part of a larger study of the social competence of regular students enrolled in second and fourth grade classrooms, Hops, Lewin, Walker, and Severson (1990) incorporated the SSBD Stage One measures as part of their overall data collection procedures. A total of 47 subjects were participants in this part of their overall study, with 26 subjects enrolled in grade 2 and 21 enrolled in grade 4. Of the 26 second graders, 10 were highly ranked by their teachers as externalizers, 9 were highly ranked as internalizers and 7 did not appear on either rank order list using the SSBD Stage One procedures. For the 21 fourth graders, there were 7 each externalizers, internalizers and non-ranked students. The second and fourth grade subject groups were combined for purposes of statistical analysis.

These authors recorded a broad range of social competence and academic skill measures on all students, including the subjects described above, who were enrolled in the participating classes for whom prior parental consent was obtained. These measures included direct observations recorded on child and/or teacher behavior in classroom and playground settings, sociometric assessment procedures and teacher ratings of the students' status on such dimensions as aggression, social withdrawal, and academic competence. Comparative analyses were conducted of the SSBD subject groups' relative status on these measures. Separate one-way ANOVAs were conducted for each of these study variables with post hoc tests conducted for variables yielding significant F ratios. Results of these analyses are presented in Table 15.

Table 15 contains means, standard deviations and results of corresponding post hoc test results for each statistically significant study variable. A relatively large number of variables in the Hops et al. (1990) study discriminated the three subject groups. As a rule, mean levels and corresponding discriminations were in expected directions (e.g., externalizers were rated as significantly more aggressive than internalizers or non-ranked students, internalizers were rated as significantly more socially withdrawn than either of these subject groups, both groups had lower average likability ratings assigned by their teachers, externalizers and internalizers had lower peer preference scores than non-ranked students, externalizers had much higher observed rates of teacher disapproval in reading than either internalizers or non-ranked students and so forth). However, it should be noted that the codes used by Hops et al. (1990) for recording the subjects' playground social behavior were not sensitive in discriminating the three groups.

Block-Pedego, Walker, Severson, Todis, and Barckley (1989) conducted a study in which the Alone category of the PSB code was used as a selection variable for identifying subgroups of SSBD Stage One identified externalizers and internalizers who had very low rates of social contact with peers in free-play settings. A pool of externalizers ($n=22$) and internalizers ($n=30$) was selected from the larger subject pools identified by Walker, Severson, Todis, Block, Williams, Haring, and Barckley (in press) that represented the highest 25%, respectively, of these two subject pools on the PSB code category of Alone. A random sample of 52 subjects was selected from the pool of non-identified students in the Walker et al. (in press) study who served as controls in difference analyses conducted on SSBD Stage Two and Three variables in order to

Table 15 Means, Standard Deviations, and Significance Tests for Fourth Grade Externalizing, Internalizing, and Non-Ranked Students (n=47)						
	Externalizers		Internalizers		Non-Ranked	
	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd
TEACHER RATINGS OF SOCIAL SKILLS						
Subscale 1	46.00 ¹	11.31	56.68	16.19	66.35	12.26
Subscale 2	58.52 ¹	13.95	53.31 ²	15.12	70.78	7.99
Subscale 3	31.76 ¹	8.16	36.75	10.61	45.64	5.12
TEACHER RATINGS OF ACADEMIC SKILLS						
Reading	5.11 ¹	2.34	5.18 ²	2.31	7.71	1.20
Math	5.35	2.26	6.00	1.78	7.85	1.40
TEACHER RATINGS OF BEHAVIORAL ATTRIBUTES						
Likability	0.70 ¹	0.77	0.87 ²	1.20	2.14	1.40
Aggression	7.58 ^{1,3}	4.01	1.68	2.54	1.35	2.37
Withdrawal	1.29 ³	1.79	3.31 ²	2.96	0.42	0.75
Popularity	7.11 ¹	6.43	6.68 ²	5.58	13.71	5.95
SOCIOMETRIC STATUS						
Peer Preference (Positive choices minus negative choices)	-0.50 ¹	1.13	-0.43 ²	0.96	0.58	0.80
Social Impact (Positive choices plus negative choices)	0.27	0.99	0.10	0.67	0.48	0.72
OBSERVED TEACHER BEHAVIOR						
Teacher Disapproval (Reading)	0.06 ^{1,3}	0.08	0.01	0.04	0.01	0.04
Teacher Disapproval (Math)	0.01	0.06	0.02	0.05	0.02	0.06
OBSERVED STUDENT BEHAVIOR						
Classroom						
On Task (Reading)	75.36 ¹	24.91	86.16	10.87	84.01	27.73
On Task (Math)	86.22	9.80	85.92	11.63	90.96	7.69
Playground						
Sociability Index (Initiations to peers/Initiations from peers)	15.66	23.11	5.85	11.23	20.84	35.48
% Negative Social Behavior	0.57	1.53	0.10	0.41	0.00	0.00
% Time Alone	4.45	5.36	7.68	9.10	8.76	17.32
% Social Involvement	27.47	18.92	22.84	31.06	31.83	28.54
1 = Externalizers vs. non-ranked students ($p < .05$) 2 = Internalizers vs. non-ranked students ($p < .05$) 3 = Externalizers vs. Internalizers ($p < .05$)						

identify behavioral correlates of large amounts of time spent alone in free-play settings.

The Critical Events Index average scores for these three groups were 4.50 (sd = 2.90), 2.30 (sd = 2.08) and .08 (sd = .27) for externalizers, internalizers and non-ranked students, respectively. Means for externalizers and internalizers were significantly different from the mean for non-ranked students at ($p < .05$).

Adaptive Behavior Rating Scale average scale scores for these groups were 31.53 (sd = 6.89), 42.80 (sd = 8.75), and 55.55 (sd = 3.26); similarly, Maladaptive Behavior Rating Scale average scale scores were 35.18 (sd = 5.90), 19.00 (sd = 4.59), and 13.76 (sd = 3.00). The mean scores for externalizers and internalizers were significantly different from control subject means for both scales at ($p < .05$). Item by item comparisons were also conducted for the three subject groups on the Stage Two rating scales. Means and standard deviations for each of these item comparisons are presented in Table 16.

The results of post hoc tests designating statistical significance at ($p < .05$) are also presented in Table 16. Inspection of this table indicates that all of the rating scale items discriminated externalizers from non-ranked subjects; these same items were substantially less powerful in discriminating internalizers and non-ranked subjects. Nearly all these items discriminated externalizers from internalizers.

Separate t-tests were conducted for externalizers versus non-ranked subjects and for internalizers versus non-ranked subjects on each of the Stage Three PSB code categories. For externalizers versus non-ranked subjects, the following codes and variables, derived from code category combinations, discriminated at ($p < .05$): Parallel Play, Alone, Positive Interaction, and Negative Interaction; for internalizers versus non-ranked subjects, the discriminating code categories were Parallel Play, Alone, and Positive Interaction. Behavioral profiles on each of these code categories favored the non-ranked subjects.

Table 16

Means, Standard Deviations and Significance Tests for Subject Groups on the Adaptive and Maladaptive Rating Scale Items (n=104)

		Externalizers (Highest 25% Alone)		Internalizers (Highest 25% Alone)		Non-Ranked Students (Random Sample)	
		$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd
ADAPTIVE BEHAVIOR RATING SCALE							
1.	Follows established classroom rules.	2.81 ^{1,3}	0.73	4.22 ²	0.85	4.80	0.40
2.	Is considerate of the feelings of others.	2.22 ^{1,3}	0.75	3.96 ²	0.75	4.70	0.50
3.	Produces work of acceptable quality given her/his skill level	2.90 ¹	1.10	3.51 ²	1.22	4.62	0.66
4.	Gains peers' attention in an appropriate manner	2.65 ^{1,3}	1.12	3.29 ²	1.03	4.64	0.74
5.	Expresses anger appropriately (e.g., reacts to situation without being violent or destructive)	2.69 ^{1,3}	0.99	4.07	1.23	4.78	0.67
6.	Cooperates with peers in group activities or situations	2.63 ^{1,3}	0.72	3.85 ²	1.06	4.90	0.30
7.	Makes assistance needs known in an appropriate manner (e.g., asks to go to the bathroom, raises hand when finished with work, asks for help with work, etc.)	2.86 ^{1,3}	0.99	3.74 ²	1.16	4.74	0.44
8.	Is socially perceptive (e.g., "reads" social situations accurately)	2.27 ^{1,3}	0.88	3.14 ²	1.02	4.66	0.59
9.	Does seatwork assignments as directed	2.77 ^{1,3}	1.23	3.66 ²	1.17	4.68	0.58
10.	Compliments peers regarding their behavior or personal attributes (e.g., appearance, special skills, etc.)	1.91 ^{1,3}	0.88	2.57 ²	1.24	3.62	0.85
11.	Complies with teacher requests and commands	2.77 ^{1,3}	0.81	4.33 ²	0.91	4.88	0.32
12.	Initiates positive social interactions with peers	3.00 ¹	1.15	2.77 ²	1.08	4.68	0.58
MALADAPTIVE BEHAVIOR RATING SCALE							
1.	Requires punishment (or threat of same) before she/he terminate an inappropriate activity or behavior	3.50 ^{1,3}	1.19	1.74	1.16	1.34	0.74
2.	Refuses to participate in games and activities with other children at recess	2.47 ^{1,3}	0.98	3.22	1.18	1.20	0.40
3.	Behaves inappropriately in class when corrected (e.g., shouts back, defies the teacher, etc.)	2.71 ^{1,3}	1.38	1.07	0.38	1.40	1.21
4.	Responds inappropriately when other children try to interact socially with her/him	3.00 ^{1,3}	0.94	2.25 ²	0.94	1.26	0.82
5.	Child tests or challenges teacher-imposed limits (e.g., classroom rules)	3.95 ^{1,3}	1.07	1.39	0.84	1.36	0.63
6.	Uses coercive tactics to force the submission of peers (e.g., manipulates, threatens, etc.)	3.20 ^{1,3}	1.28	1.29	0.54	1.12	0.38
7.	Creates a disturbance during class activities (e.g., is excessively noisy, bothers other students, out of seat, etc.)	4.14 ^{1,3}	1.19	1.44	0.64	1.24	0.43
8.	Manipulates other children and/or situations to get his/her own way	3.23 ^{1,3}	1.13	1.48	0.64	1.22	0.46
9.	Is overly affectionate with others (peers and adults), e.g., touching, hugging, kissing, hanging on, etc.	1.76 ¹	1.09	1.40	0.97	1.18	0.69
10.	Is excessively demanding (e.g., requires or demands too much individual attention)	3.66 ^{1,3}	0.96	1.66 ²	0.91	1.18	0.48
11.	Pouts or sulks	3.50 ^{1,3}	1.14	1.88 ²	0.75	1.18	0.43
1 = Externalizer vs. Non-Ranked (p<.05) 2 = Internalizer vs. Non-Ranked (p<.05) 3 = Externalizer vs. Internalizer (p<.05)							

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Table 17						
SARS Behavioral Profiles for Externalizing, Internalizing, and Non-Ranked Students (n=332)						
SARS Variables	Externalizers (n=85)		Internalizers (n=86)		Normal Comparison (n=161)	
Achievement Test	$\bar{x} = 38.35$ sd = 27.58		$\bar{x} = 43.61$ sd = 28.73		$\bar{x} = 68.56$ 23 = 23.74	
	YES	NO	YES	NO	YES	NO
Behavioral Referrals within School	18	67	5	81	0	161
Academic Referrals within School	25	60	28	58	9	152
Current IEP	18	67	22	64	8	153
Placement in Non-Regular Classroom	17	68	22	64	18	143
Chapter I Services	30	55	33	53	18	143
Referrals Out of School	9	76	3	83	1	160
Negative Narrative Comments	46	39	35	51	17	144
Disciplinary Contacts with Principal	37	48	5	81	5	156
Speech and Language Referrals within School	10	75	24	62	13	148
* $p < .01$ for all SARS variables on all Chi-square group comparisons						

Walker, Severson, Todis, Block-Pedego, Williams, Haring, and Barckley (1990) examined the school records of 85 high ranked externalizers, 86 high ranked internalizers and 161 normal comparison students from their larger sample of 856 subjects in grades 1-5. Their school records were systematically coded using the School Archival Records Search (SARS) procedure (Walker, Block-Pedego, Todis, & Severson, 1991). The SARS makes it possible to code 11 archival school records variables that are commonly found in school folders (e.g., referrals, achievement, attendance, discipline contacts and so forth). Table 17 contains profiles of the three subject groups on each of these SARS variables.

Chi-square analyses indicated that all of the SARS variables discriminated the three subject groups at ($p < .01$). Inspection of Table 17 indicates that the SARS behavioral profiles for externalizers and internalizers were highly problematic and document extensive adjustment problems in the school setting. Their profiles were dramatically different from those of the normal comparison students. Although both groups seem to be considerably at risk for school failure, the profiles for externalizers appeared to the authors to be somewhat more problematic than the internalizers' profiles. Thus, teacher-identified subject groups in SSBD Stage

One proved to have school records profiles that indicate very serious adjustment problems and that provide powerful support for the utility of teacher judgment in the screening and identification of behaviorally at-risk students.

Finally, as part of a larger study that investigated the construct validity of the overall SSBD procedure, Walker, Block-Pedego, Severson, Todis, Williams, Barckley, and Haring (in press) examined the social competence of externalizing and internalizing subject groups. Subjects for this study were participating teachers (grades 1-5) and students ($n=280$) in their classrooms in a single elementary school located in the Peninsula School District of Washington State. Two teachers from four of the grade levels and three teachers from one grade level were study participants. The SSBD Stage One, Two and/or Three measures were recorded on students participating in the study. In addition, sociometric procedures, teacher ratings of social skills and archival school record searches were also completed for these subjects.

These authors identified from the study sample all those students who received one or fewer work and play choices in a sociometric assessment procedure in which students indicated their three most preferred work and play choices ($n=6$). Results of this procedure indicated that 22% of the externalizing subjects ($n=24$), 25% of the internalizing subjects ($n=27$), and 5% of the normal comparison (non-ranked) subjects ($n=3$) met the criterion for being socially isolated. For comparative purposes, isolate and non-isolate groups of externalizers and internalizers were constructed by the authors. Isolate subjects were those who were ranked by their teachers as having either externalizing or internalizing behavior patterns and as receiving one or fewer work and play choices from their peers. Comparison students ($n=57$) consisted of those who did not appear on either the externalizing or internalizing rank order teacher lists and had more than one work and play choice from peers. The isolate and non-isolate subject groups were compared on teacher ratings of social skills, the SSBD Stage Two measures and on the PSB playground observation code. Table 18 contains means, standard deviations and results of statistical tests of subject group differences on each of these variables. This table also contains means and standard deviations for the non-ranked comparison students to provide a normative standard for evaluation of externalizing and internalizing subjects' behavioral levels.

Table 18

Means, Standard Deviations and Significance Tests for Isolate and Non-Isolate Subject Groups on
Teacher Social Skills Ratings and SSBD Stage Two and Three Measures

TEACHER SOCIAL SKILLS RATINGS	Subscale 1 Teacher Preferred				Subscale 2 Peer Preferred				Subscale 3 School Adjustment				Total Scale Score			
	$\bar{x}$	sd	F	p	$\bar{x}$	sd	F	p	$\bar{x}$	sd	F	p	$\bar{x}$	sd	F	p
Normal Controls	72.84	6.83	—	—	75.59	8.75	—	—	47.80	3.60	—	—	196.17	16.26	—	—
Externalizers, Isolate	46.70	13.67	10.25	.002	51.00	14.66	24.33	.000	32.08	8.94	8.40	.005	129.79	32.01	16.95	.000
Non-Isolate	57.43	14.71			66.72	13.56			38.16	9.12			162.31	34.78		
Internalizers, Isolate	60.74	12.42	7.71	.006	49.70	13.82	17.75	.000	38.48	8.59	13.41	.000	148.92	29.33	18.61	.000
Non-Isolate	67.66	10.79			62.53	13.65			43.88	5.87			174.08	25.15		
STAGE TWO MEASURES	Critical Events Index				Adaptive Behavior Rating Scale				Maladaptive Behavior Rating Scale				Total Positive			
	$\bar{x}$	sd	F	p	$\bar{x}$	sd	F	p	$\bar{x}$	sd	F	p	$\bar{x}$	sd	F	p
Normal Controls	0.05	0.22	—	—	56.85	3.25	—	—	12.36	2.43	—	—	88.00	11.91	—	—
Externalizers, Isolate	4.16	4.40	19.95	.000	38.62	8.87	8.26	.005	25.84	8.92	7.59	.007	86.00	10.36	0.002	.964
Non-Isolate	1.43	1.92			44.91	9.63			20.75	7.71			85.68	14.74		
Internalize, Isolate	1.25	1.45	8.69	.004	47.25	8.07	8.78	.004	15.09	5.18	5.42	.02	72.57	20.69	9.56	.004
Non-Isolate	0.56	0.89			52.06	7.06			13.15	3.18			90.17	10.22		
STAGE THREE MEASURES	Parallel Play				Alone				No Code							
	$\bar{x}$	sd	F	p	$\bar{x}$	sd	F	p	$\bar{x}$	sd	F	p				
Normal Controls	2.35	4.66	—	—	6.57	9.84	—	—	.28	.57	—	—				
Externalizers, Isolate	1.20	1.89	0.394	.535	5.30	9.72	0.011	.916	2.30	2.30	4.66	.040				
Non-Isolate	3.64	8.53			4.82	9.17			.78	1.23						
Internalizers, Isolate	3.42	4.30	8.85	.006	18.71	18.38	9.86	.004	1.28	1.77	0.060	.808				
Non-Isolate	0.58	1.08			4.36	7.09			1.84	5.91						

Substantial mean differences were identified between the isolate and non-isolate externalizing and internalizing subject groups on each of the three major classes of dependent measures. Total scale score and all three subscales of the Walker-McConnell scale discriminated both isolates from non-isolates on both externalizing and internalizing dimensions. Similarly, all three Stage Two Instruments also significantly discriminated these subject groups. Isolates had less favorable behavioral profiles on these two classes of measures than non-isolates in every case. Four PSB code categories discriminated isolates from non-isolates; the no code category discriminated isolate from non-isolate externalizers and the categories/variables of Parallel Play, Alone and Total Positive Behavior discriminated isolate from non-isolate internalizers. As with the other study measures, the profiles for non-isolates were more favorable than for isolates on each of these variables. Overall, these results and measures demonstrate the sensitivity of teacher judgment to differences in child behavior as expressed through the SSBD instruments.

The studies and results reported herein under discriminant validity are extensive in documenting the SSBD procedure's ability to identify externalizers and internalizers with problematic behavioral profiles and to separate them reliably from students with normal or well-adjusted school behavior patterns. In one sense, this is the most important form of SSBD validity because the procedure and the instruments comprising it were designed to identify and discriminate externalizing and internalizing students from pools of students who do not manifest such behavioral tendencies. The empirical studies described above provide powerful evidence in support of the SSBD's ability to accomplish this goal.

Criterion Related Validity

Walker, Severson, Todis, Block-Pedego, Williams, Haring, and Barckley (in press) investigated the criterion-related validity of the SSBD by examining relationships between selected SSBD Stage One, Two and Three measures and factorial dimensions derived from the SARS variables. Walker, Block-Pedego, Todis, Severson (1991) factor analyzed the 10 SARS variables using a sample of 307 externalizers, internalizers and normal comparison subjects enrolled in grades 1-5. This procedure yielded three factors (i.e., needs assistance, disruptive and low achievement) with eigen values of 3.34, 1.54 and 1.21. The cumulative percent of variance accounted for by these three factors was 61%.

Separate regression analyses were conducted using each of the SARS factors as criterion variables and selected SSBD Stage One, Two and Three measures as predictor variables. Five SSBD predictor variables were used in each of these analyses. The multiple correlations between SSBD predictor variables and status on the three factorial criterion variables were .43 for needs assistance, .50 for disruption and .54 for low achievement. The respective R squares of these correlations were .19, .25, and .29. Overall, these multiple correlations provide moderate evidence of the SSBD measures' ability to predict subjects' status on independently recorded criterion variables derived from archival school records. However, it is clear that other factors, not measured by the SSBD, account for status on these archival variables as well.

Predictive Validity

A total of 32 externalizers, 35 internalizers and 88 non-ranked subjects in grades 1-5, identified and assessed during the 1986-87 school year, were followed up into the 1987-88 school year and reassessed by different raters and observers. Only the externalizing and internalizing students were reassessed on the SSBD Stage One and Two measures during follow-up; however, the non-ranked students and the externalizers and internalizers were all observed in classroom and playground settings during follow-up.

Sixty-nine percent of the externalizing students were included among the top three ranked externalizers on their respective teachers' Stage One rankings during follow-up; the corresponding figure for the internalizers was 52%. Table 19 provides correlations between the SSBD Stage Two measures from rating time 1 (1986-87) to rating time 2 (1987-88) and among the measures at each time point.

Table 19 Correlations Between Year One and Year Two Follow-up Scores on SSBD Stage Two Measures for Combined Externalizing and Internalizing Groups (n=155)			
	Critical Events Index	Adaptive Rating Scale	Maladaptive Rating Scale
Critical Events Index	0.3238 p = <.004	-0.4135 p = <.005	0.3562 p = <.014
Adaptive Rating Scale	-0.2642 p = <.015	0.4054 p = <.006	-0.3872 p = <.008
Maladaptive Rating Scale	0.3380 p = <.003	-0.5486 p = <.000	0.7010 p = <.000

Inspection of Table 19 indicates that the correlations for the Stage Two measures across the 1-year follow-up period ranged from .32 (Critical Events Index) to .70 (Maladaptive Rating Scale). Correlations among these measures at each time point were in the low to moderate range.

The SSBD Stage Three observational measures, recorded in the follow-up year (1987-88), were entered into a discriminant function analysis procedure in order to test their accuracy in classifying the subjects' group membership in the previous year (1986-87). A total of 12 observation code categories and combinations of same were used as predictors in this analysis. Overall, these variables correctly classified 53% of subjects in the three student groups with 44%, 43% and 60% of externalizers, internalizers and non-ranked students, respectively, being correctly classified. Table 20 contains a listing of the predictor variables for each of the two discriminant functions in the analysis arranged by order of magnitude according to the size of their correlations within each function.

Table 20		
Stage Three Predictor Variables for Discriminant Analysis Classifying Previous Year's Subject Group Status (n=155)		
PSB Variables	Function 1	Function 2
No Code	0.59	0.21
Total Positive	-0.59	0.12
Academic Engaged Time	-0.56	0.02
Alone	0.51	-0.44
Positive Interaction	-0.34	0.23
Social Involvement	-0.28	0.06
Total Negative	0.27	0.80
Negative Interaction	0.20	0.75
Social Engagement	-0.28	0.49
Parallel Play	0.19	-0.24
Participation	0.11	-0.20

These results indicate that the follow-up observation data classified the subjects' group status at rating time 1 above chance expectation levels. However, the classification efficiency of these variables was only in the moderate range.

Overall, these results suggest relatively modest levels of predictive validity for the SSBD measures as recorded over a 1-year follow-up period. The fact that 69% and 52%, respectively, of externalizers

and internalizers appeared in their teachers' top three Stage One rankings in year two suggests moderate behavioral stability on the part of these subjects and considerable teacher sensitivity to their behavioral characteristics. The stability of the subjects' maladaptive behavior, as rated by teachers, was substantially higher than the stability for either their adaptive behavior or their status on the Critical Events Index.

Construct Validity

This type of validity refers to an instrument's ability to measure a particular construct and is usually established through indirect evidence and inference (Salvia & Ysseldyke, 1988). Two examples of the SSBD's construct validity have been demonstrated thus far. In the Walker, Severson, Todis, Block-Pedego, Williams, Haring, and Barckley (in press) study, these authors identified 40 elementary classrooms (grades 1-5) in a cooperating school district in the State of Washington in which a total of 54 certified SED students had been previously mainstreamed. The participating teachers were not informed about these students or about their relationship to the proposed study. These teachers completed SSBD Stages One and Two; and SARS record searches were completed on eight students from each classroom (three externalizers, three internalizers and two non-ranked students).

The authors were especially interested in whether the 54 SED students would appear among their teachers' top three ranks on either the externalizing or internalizing dimensions in SSBD Stage One. Teachers assigned all 54 SED students to either the externalizing ($n=45$) or internalizing ($n=9$) rank order lists. In terms of their actual rank orders, 39 of 45 externalizers were ranked by their teachers as among the top three students on the externalizing list ($n=10$), while all 9 internalizers appeared among the top three ranks. These results provide testimony to the sensitivity of the SSBD in measuring the construct of school related behavior disorders.

Severson, Walker, Barckley, Block, Todis and Rankin (1989) investigated the construct validity of the SSBD procedure using subjects enrolled in grades 1, 3, and 5 of a single elementary school in Washington State. Data were collected on all students ($n=76$) in the three classrooms using the following instruments:

- (a) sociometrics (work and play),
- (b) the Walker-McConnell Scale of Social Competence and School Adjustment,

- (c) observations of Academic Engaged Time (AET),
- (d) Peer social Behavior (PSB) playground observations,
- (e) School Archival Records Searches (SARS),
- (f) the SSBD Critical Events Scale, and
- (g) the SSBD Adaptive and Maladaptive Rating Scales.

The focus of analyses conducted on these variables was to determine the degree of problematic adjustment status of high ranked externalizers and internalizers in SSBD Stage One as indicated by multiple indicators of school adjustment (e.g., sociometrics, direct observations, school records, social skills ratings). These school adjustment indicators provided a large number of specific measures that could register confirmatory evidence of school adjustment problems.

Two subsets of five variables each from this array were chosen for the internalizing and externalizing subject groups, respectively, on the basis of both theoretical and empirical grounds. That is, five variables were selected for each behavioral dimension that fit a theoretical model of factors likely to contribute to internalizing versus externalizing dimensions and that manifested a unique contribution to total variance based on their part correlations within each dimension. Five variables were judged to be an appropriate number for a sample size of 76. This five-variable set for externalizers consisted of

- (a) the school adjustment subscale of the Walker-McConnell Social Skills Scale
- (b) sociometric work and play choices
- (c) amount of negative social interaction
- (d) amount of total positive social behavior and
- (e) the PSB No Code category.

The variable set for internalizers was as follows:

- (a) the peer subscale of the Walker-McConnell Social Skills Scale
- (b) sociometric work and play choices
- (c) referral for speech and language (SARS)
- (d) amount of time spent Alone on the playground and
- (e) amount of time spent in Parallel Play at recess.

These variables were then submitted to a discriminant function analysis procedure using a direct entry method where the groups to be discriminated were the top three ranked students (teacher ranks 1-3) versus the bottom seven (teacher ranks 4-10) on the externalizing and internalizing dimensions, respectively. These analyses created two discriminant functions which were linear combinations of weighted standard scores, thus making it possible to aggregate these sources of data in order to create an overall deviance score for each subject. This deviance score served as an aggregated criterion variable for establishing the "behavioral at-risk status" of each participating subject. The students who appeared on the externalizer ($n=10$) and the internalizer ($n=10$) teacher-generated lists were respectively rank-ordered on this "deviance index" according to the composite scores they received based on the five variables identified for externalizers and internalizers, respectively. The two discriminant function analyses determined how well SSBD Stage One teacher rankings correctly classified subjects as being in the top three ranks versus the bottom seven ranks on this deviance index on the externalizing and internalizing dimensions, respectively.

The Spearman rank order correlation between the problem behavior deviance index and the SSBD Stage One rankings was $\rho = .71$ ($p < .001$) for externalizers and $\rho = .76$ ($p < .001$) for internalizers, respectively. The results of the discriminant function analyses indicated that Stage One teacher rankings correctly classified 73% of externalizers as being in the top three ranks versus ranks 4-10 on the deviance index, and similarly, Stage One teacher rankings correctly classified 82% of the internalizers (ranks 1-3 versus 4-10) on this deviance index. These classification ratios are well above chance expectations. The resulting Wilk's Lambda's of .54 and .50 for these analyses were both significant at ($p < .05$).

In the authors' view, these results provide confirmatory evidence of a largely external nature that teacher rankings on externalizing and internalizing dimensions, as expressed through the structured format of the SSBD procedure, are predictive of school adjustment problems as indicated by a series of multiple measures of behavioral status. The correlations between teacher-generated Stage One rankings and rankings of the same subjects on the externally generated behavioral deviance index are in the moderate to high range of magnitude and provide evidence in support of the SSBD's construct validity.

SSBD Field Testing and Replication

The SSBD has been formally field tested within six sites across the country. These sites were located in the states of Oregon, Utah, Illinois, Wisconsin, Kentucky, and Rhode Island. SSBD Stage One and Two measures were recorded in all six of these field sites; Stage Three measures were recorded in all these sites except Wisconsin. The authors and their colleagues conducted on-site training of school district personnel involved in the field testing process prior to initiation of any data collection within each site. Attempts were made to field test the SSBD in these sites under conditions that would approximate, as closely as possible, those that would exist under normal conditions of screening and SSBD usage. The adherence to a minimum set of research requirements across these sites, however, doubtless attenuated achievement of this goal to some degree. However, these requirements were necessary to produce comparable, reliable, and generalizable data across these sites.

Formal training in the administration of the SSBD procedures and dealing with logistics involved in meeting field test research requirements were usually accomplished within a single day; however, the training of school personnel as reliable observers on the Stage Three observation procedures generally required a second day of training and supervised practice using the codes within in vivo settings. In some cases, follow-up visits were made to field test sites to conduct additional training, coordinate the monitoring of observer cadres, and assist with the calibration of inter-observer agreement indices. Telephone contacts were maintained with field test sites throughout the field-testing process which spanned periods ranging from four to eight months. A supervisor/coordinator was identified within each field test site to monitor and troubleshoot problems that arose during the field testing process. These field testing activities were supported by a three year, field initiated research grant from the U.S. Office of Special Education Programs.

Field test results from these sites allowed for inter-site replication of SSBD procedures and outcomes, and were quite consistent across sites. In addition, data and results from these sites were included in the SSBD national standardization sample for the Stage Two ($n=4500$) and Stage Three ($n=1300$) measures.

A formal replication of both the SSBD's implementation and the results of its initial field testing, as reported by Walker, Severson,

Stiller, Williams, Haring, Shinn, and Todis (1988), was conducted by Nicholson (1988) during the 1987-88 school year. This systematic replication was supported by a grant from the Utah Office of Special Education. The replication effort spanned the entire 1987-88 school year and was conducted within the Jordan School District, a suburban school district serving the suburbs of Salt Lake City, Utah. Though the full range of SES levels is represented in this district, it serves primarily a middle class population.

Three elementary schools within the Jordan district participated in the SSBD replication study. Subjects involved in the SSBD Stage One screening procedures were 1468 students and their respective teachers ($n=58$) in grades 1-5 within these three elementary schools. At SSBD screening Stage Two, subjects consisted of 475, grades 1-5, students who were selected from Stage One based on their teachers' rankings. Subjects observed in classroom and playground settings in SSBD screening Stage Three were 225 subjects identified respectively as the top ranked externalizer, top ranked internalizer and two non-ranked students selected from each participating classroom.

A total of 900 observations of a minimum 12 minutes' duration were recorded on these subjects in classroom and playground settings on two occasions each. Classroom observations were recorded during independent seatwork periods whenever possible and during normal recess periods on the playground. Observers were rigorously trained and carefully monitored in this study. Reliability checks were conducted on 16 of the classroom observation sessions, and interobserver agreement averaged 95%. Similarly, interobserver agreement was calculated for 49 of the playground observation sessions and averaged 88%.

Of the 173 students who appeared in the highest three ranks on the Stage One externalizing rank order dimension, 82% were males and 18% were females. In contrast, 44% of the top ranked internalizers were males and 66% were females. These results are very similar to the proportions identified in the Walker et al. (1988) initial field test (see SSBD Trial Testing above).

Similarly, interrelationships among the Stage Two and Three measures also closely replicated the initial trial test results. Correlations among the SSBD Stage Two measures ranged from .61 to .77 and Stage Three intercorrelations ranged from .13 to .62. As in the Walker et al. (1988) trial test, correlations between Stage Two and Three measures were low and ranged from -.21 to .17. In addition, coefficient Alpha for the Stage Two Adaptive and Mala-

daptive Behavior Rating Scales were .94 and .90, respectively, in this replication.

The Stage Two and Three measures were highly sensitive in discriminating behavioral differences between high ranked externalizers, high ranked internalizers and non-ranked control subjects. A discriminant function analysis indicated that the SSBD Stage Two and Three measures correctly classified 84% of the three subject groups overall. As in the Walker et al. (1988) study, the classification ratios were highest for non-ranked students, followed by externalizers and then internalizers. Externalizers exhibited less adaptive behavior, more maladaptive behavior and more critical events than either internalizers or non-ranked students. They also spent less time academically engaged and produced fewer positive interactions as compared to internalizers and non-ranked students. Internalizers exhibited less adaptive behavior, more maladaptive behavior and more critical events than non-ranked students. They also spent a lower percentage of observed time academically engaged than non-ranked students. Though fewer between subject differences were found on the PSB code categories in the Nicholson (1988) study, these results overall closely replicated those reported by Walker et al. (1988).

A comparative cost analysis and consumer satisfaction survey of the SSBD were also included in this replication study. Nicholson (1988) compared the time and cost expenditures for the SSBD against currently used methods, as associated with the assessment of students for certification as behavior disordered under current and proposed Utah regulations. The time and costs required under current regulations using traditional assessment procedures were 6.85 hours and \$182 per student. SSBD procedures under these same regulations were estimated to require 6.43 hours and \$175 per student; however, under proposed state regulations, these figures reduced to 5.42 hours and \$150 per student. Paired t-tests were used to test for the significance of the differences among these estimates. Under existing regulations, the time difference was not significant; however, the cost difference of \$7 per student was at ($p < .05$). Under the proposed regulations, these differences were both significant at ($p < .001$). While highly favorable to the SSBD, these cost and time comparisons are estimates and subject to errors of estimation. It is also possible that the SSBD does not provide all the assessment information necessary to certify students as SED in states other than Utah, thus possibly limiting the generalizability of these results.

Resource teachers, psychologists and regular teachers were surveyed to assess their general satisfaction with the SSBD procedure and to compare its efficacy with traditional procedures. Resource teachers and psychologists completed a 13-item survey and regular teachers completed an 11-item survey. Results indicated that resource teachers and psychologists were much more favorable about their experiences with the SSBD than were regular teachers. Seventy-five percent of the resource teachers and psychologists would recommend the SSBD for use by other school faculties and a majority of these respondents ($n=8$) responded to each survey item favorably. In contrast, only 33% of the regular teachers sampled ($n=51$) would recommend the system to other school faculties. However, when the survey items were analyzed by individual school faculties ($n=3$), it was apparent that one of the school faculties was very negative in their responses to the survey while the other two faculties were considerably more positive. In this school, the percentage of faculty responding favorably ranged from 12 to 72% across the survey items and averaged 32%. In the second school, in contrast, these percentages ranged from 53 to 87% and averaged 67%. In the third school, these figures ranged from 42 to 90% and averaged 64%. Thus, the results from the most negative school may have been substantially biased or influenced by variables over which the field test personnel had little control or knowledge.

The results of this replication study provided considerable overlap in findings with the initial trial study conducted by Walker et al. (1988) in one school and involving 18 teachers. The Nicholson (1988) replication involved 58 teachers in 3 elementary schools located in another state. These findings extend substantially the results of the original trial test of the SSBD as reported by Walker et al. (1988). The cost-benefit analysis and consumer satisfaction surveys of the Nicholson (1988) study are important contributions in the comprehensive evaluation of alternative approaches to existing practices such as the SSBD.

SSBD National Standardization Sample

The national standardization sample for the SSBD is comprised of approximately 4500 cases (n=4463) on the Stage Two measures and approximately 1300 cases (n=1275) on the Stage Three measures. These cases were developed within 18 school districts located in 8 states across the country. These states were Oregon, Washington, Utah, Illinois, Wisconsin, Rhode Island, Kentucky, and Florida. Table 21 contains the proportion of the total cases in the standardization sample from each of these sites for both Stage Two and Three Measures.

Table 21		
Proportion of Cases on SSBD Stage Two and Three Measures by Standardization Sample Size		
SSBD STAGE TWO MEASURES		
Site	n	Percent of Total Sample
Florida	82	1.8
Washington	280	6.3
Illinois	198	4.4
Kentucky	1144	25.6
Oregon	1284	28.8
Rhode Island	261	5.8
Utah	1038	23.3
Wisconsin	176	3.9
	4463	100.0
SSBD STAGE THREE MEASURES		
Site	n	Percent of Total Sample
Washington	77	6.3
Illinois	99	8.1
Kentucky	212	17.4
Oregon	455	37.3
Utah	316	25.9
Rhode Island	60	4.9
	1219	100.0

This sample was developed over a 2-year period spanning the 1987-88 and 1988-89 school years. The development of the sample was made possible through state education department (Utah and Kentucky) and school district contacts of the authors. Two sites (Illinois and Wisconsin) contacted the authors regarding participation in the standardization process and in facilitating a field test of the SSBD.

Correlations were computed between the Stage Two measures and grade and sex of students in the standardization sample. For the Critical Events Index and the Adaptive and Maladaptive Rating Scales, the correlations with grade were .02, -.04, and .00. The corresponding correlations with sex of student were -.18, .28, and -.26. Although several of these correlations reached significance at ($p < .05$), they were clearly in the low range of magnitude and, in the authors' estimation, did not justify the creation of separate samples and distributions based on grade or sex.

The AET code and some of the PSB code categories, however, showed substantial age (AET) and/or sex differences (e.g., participation, social engagement, as well as positive and negative social interaction). Thus, separate distributions were calculated by age and sex of student on these variables for externalizers, internalizers and non-ranked subjects. (See *SSBD User's Guide and Administration Manual* for details.) See Appendix A in the *User's Guide* for tables resulting from these distributions.

The authors were able to obtain data on the demographic and socioeconomic status characteristics for 12 of the 18 school districts participating in the standardization sample development effort. Table 22 contains displays of this information by total school district enrollment, total number and proportion of non-white students, and the total proportion of students coming from low income homes.

Table 22 SSBD Standardization Sample Demographic Characteristics					
School District	Total Enrollment	Total Non-White Enrollment	%	Total Low Income Enrollment	%
Oregon					
Springfield			3.0		33.0
Park Rose	1254	179	14.3		35.0
Kentucky					
Fayette	17686		24.6		25.9
Ohio	4157	55	1.3	1524	37.0
Owen			<1.0		40.0
Henderson	1732		7.3		24.4
Illinois					
SASED	5354	625	12.0	12	4.3
Dist. #33	2026	590	29.0	468	23.0
Dist. #34	239	5	<1.0	0	—
Dist. #25	473	1	<1.0	25	5.0
Wisconsin	879	10	1.1	59	6.7
Utah					
Granite	76799	6374	8.3	12364	16.1
Jordan	62281	3346	5.4	6237	10.6
Washington					
Tacoma	29268	9671	33.0	11414	39.0
Peninsula	7064	376	5.3	805	12.3
Florida	62778	25738	31.0		
Rhode Island	5659	1129	20.0	2175	38.0

Non-white proportions of the school population across these districts ranged from less than 1 to 29%. The proportion of students coming from low income families ranged from 4.3% to 40%. Across school districts in the standardization sample, both non-white and low income student status appeared to be broadly represented.

Standard score and percentile distributions of externalizing, internalizing and non-ranked student cases are presented and discussed in the *SSBD User's Guide and Administration Manual*. Cutoff scores, based on these distributions, are used as decision criteria for determining whether individual students move from Stage Two to Three and from Stage Three to additional evaluation

and/or certification. Complete instructions for making these decisions are contained in the *SSBD User's Guide and Administration Manual*.

Social Validity

The SSBD procedure is broadly perceived by both experts and practitioners in the field of education to represent an innovative and "best practices" approach to the task of screening and identifying appropriate candidates for prereferral interventions, consideration by teacher assistance teams, as targets of collaborative consultation efforts and as candidates for referral to child study teams and ultimately special education. A large number of educators and psychologists in higher education, state education department offices and school district settings have endorsed the SSBD as an effective response to the need for systematic screening and identification and the development of higher quality referrals (i.e., students with behavioral problems/disorders whose school adjustment is seriously impaired).

The need for a process such as the SSBD was recently articulated in a position paper by the *Executive Committee of the Council for Children with Behavior Disorders* (CCBD, 1987). This national organization called for "a screening and identification system to be adopted by the field" for use in more effectively identifying students who may be in need of additional evaluation and diagnosis and/or interventions. The SSBD was cited by the authors of the CCBD position paper as a promising, innovative approach in this regard.

On the basis of need, support, and the strength of the research data presented, SSBD received further validation in the form of approval by the United States Department of Education's *Program Effectiveness Panel* in February 1990. This panel, comprised of experts in the field of evaluation, viewed SSBD as effective in meeting stated goals, transportable to other sites, and as a program which fills a critical need in education.

Conclusion

This *Technical Manual* has attempted to document the research and development process the SSBD authors and their colleagues conducted to establish the psychometric integrity, efficacy and social validity of the SSBD procedure and the instruments comprising each of its screening stages. The resulting outcomes of this five-year development and testing process are impressive in establishing the SSBD's accuracy, validity and reliability.

There appears to be little question that students who pass the SSBD Stage Three exit criteria have very serious behavioral adjustment problems of either an externalizing or internalizing nature. As such, the quality and accuracy of teacher referrals are likely to be significantly enhanced. In addition, all students enrolled in regular classrooms will have the opportunity, through the SSBD's systematic application, to be screened on a regular basis and to access needed services. The authors believe the SSBD meets best practice standards in the areas of screening and identification, providing information for use in designing interventions and matching students' problems with available programs, placements and/or intervention procedures. The accompanying *SSBD User's Guide and Administration Manual* provides instructions and guidelines for applying the SSBD system with high levels of implementation fidelity.

The authors also believe that the SSBD provides an excellent vehicle for conducting research on the delivery of quality services to at-risk students in the school setting. It is hoped that other researchers, along with the authors, will investigate these potential applications in the future.

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Systematic Screening for Behavior Disorders

OBSERVER TRAINING MANUAL



Systematic Screening for Behavior Disorders (SSBD)

STAGE THREE

**Peer Social Behavior (PSB)
Student Academic Engaged Time (AET)**

Observer Training Manual

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Introduction

The SSBD Stage Three observation codes are designed to provide direct objective assessments of target students' adjustment to playground and classroom settings. In this screening stage, target students are systematically observed during recess using the **Peer Social Behavior** (PSB) Code and in the classroom using the **Academic Engaged Time** (AET) Code. Together, these codes are used to determine if students should be referred for further evaluation, intervention services, specialized placement and/or possible certification. Stage Three observations are recorded by a school counselor, school psychologist, special educator, or other non-teaching professional during two 15-minute observations recorded in each setting on separate days.

The PSB and AET coding manuals were developed to provide observers with adequate training for insuring the recording of accurate and reliable observations. In the sections that follow, each code is described, coding definitions and rules are reviewed, and practice exercises are provided to give the observer opportunities to apply the knowledge acquired in making decisions about coding situations.

Peer Social Behavior Code

The PSB Code was designed to provide a useable measure of the **quality, level, and distribution** of students' social behavior during free play settings. The PSB is a partial interval code that provides reliable coding of the following categories: *Social Engagement, Participation, Parallel Play, Alone, and No Codeable Response*. The PSB has proven to be a highly sensitive measure in discriminating among the social behavior patterns of Externalizing, Internalizing, and Normal control students in the 1-6 grade range. This code is designed to assess the status of an individual student's behavioral adjustment to his or her peer group within the context of free play settings. Students with problematic PSB profiles experience difficulty in their peer relations and are often neglected or rejected by their peers.

The PSB, like the Academic Engaged Time (AET) code, was designed to provide a third level of screening as part of the overall *Systematic Screening of Behavior Disorders* (SSBD) procedure. However, the PSB has a broad range of additional applications in providing sensitive assessments of the social behavior of students in the elementary grade range.

Before using the PSB to record student behavior in free play settings, it is very important that the reader read and master the material in Section I of this coding manual and view and respond to the coding examples and exercises contained in the accompanying *SSBD Observer Training Videotape*. These activities will greatly facilitate development of both your conceptual and behavioral mastery of the PSB coding process. The *SSBD Observer Training Tape* also contains precoded vignettes designed to serve as accuracy standards for comparing and evaluating your codings of these taped vignettes. Appendix A contains consensual coded answers to these coding vignettes (see the *SSBD Observation Training Videotape* for details).

The PSB was involved in the field testing of the SSBD in 16 school districts in 6 states during its development. As a result, there is a national standardization sample on the code that consists of approximately 1300 cases.

Appendix B contains normative tables to assist the user of this code in evaluating scores derived from PSB recordings. These tables are broken down by

- normative subject group (e.g., Externalizers, Internalizers, and Normal Controls);
- grade level (1-3, 4-6, and 1-6 combined); and
- sex of student.

This observer training manual presents information and instructional procedures on the following topics:

- Description of the Coding Form,
- Definitions of Behavior Codes,
- Rules and Guidelines for Recording Child Behavior,
- Calculation of Reliabilities, and
- Field Procedures.

The coding procedures are intended for use primarily in playground settings where child social behavior is free to occur in an unconstrained fashion.

A two-stage process is used for training observers to criterion levels of competence on the PSB code. Observer trainees first demonstrate **conceptual** mastery of the material contained in this volume. Quizzes are presented to assist you in mastering the material contained in each of the units. If errors are made, the material should be reviewed and, if possible, discussed with the observer trainer or with someone who has mastered the code in order to achieve the necessary clarification. The quiz is then retaken. This

procedure is repeated until a 100% accuracy level is achieved before proceeding to the next unit or section.

After conceptual mastery has been demonstrated on all PSB materials, training procedures are initiated for **behavioral** mastery of observation/recording skills. A combination of role playing techniques, videotaped practice, and real life playground and/or classroom observation sessions is used for this purpose. As a first step, role playing techniques teach observers to discriminate relevant features of child social interactive behavior (e.g., what makes a child's behavior positive versus negative, verbal versus nonverbal, or what constitutes parallel play versus being alone). Observers must be able to discriminate these features **behaviorally** in analog settings before observation and recording of interactive behavior in actual playground settings becomes feasible.

After observers have mastered this portion of the training process they are given practice in using their coding skills by recording videotaped **simulations** of interactive behavior. Videotaped sequences of **actual** interactive behavior occurring among children in free play settings are used for this purpose. Observers simultaneously code brief video sequences of interactive behavior. Their coding responses are then discussed and they are given feedback on the accuracy of their recording by comparing their codings with the master coding form. Toward the end of this training phase, inter-observer agreement scores are computed both among observers and between the observer trainer and individual observers. Once mastery has been demonstrated in this phase via acceptable agreement scores, observation sessions are scheduled in actual playground settings.

Practice observation sessions are continued until all observers have demonstrated acceptable levels of agreement with the observer trainer. Small groups of observers are trained separately during these live observations, usually in groups of two or three at a time. However, each group must achieve mastery before training is completed. After mastery is demonstrated at this stage, observers are ready for recording actual observation data. It is **extremely** important that the agreement levels of observers be monitored carefully and continuously so that data on the social interactions of children will be both accurate and reliable.

To facilitate recording of playground social behavior, an audio timing cassette tape has been developed that provides a prompt for each interval. The number of the interval is given each 10 seconds to facilitate the observer coding each interval on the PSB code. This tape is enclosed with the "SSBD Complete Kit" and can also be purchased separately.

Academic Engaged Time Code

The AET code provides a sensitive yet easy to use method for recording the amount of time students are **academically engaged** during instructional periods in the classroom. Academic engagement is recorded through the use of a behavioral definition of AET and a stopwatch that is switched on and off as the student's behavior conforms with, or diverges from, this definition. Academic engagement is an important correlate of academic performance/achievement and also provides a relative measure of an individual student's behavioral adjustment to classroom rules and teacher expectations. Students with **externalizing** behavior patterns are consistently below normative levels on this measure, while internalizers are usually less discrepant from normative levels.

Like the PSB, the AET code also provides a third level of screening for the *Systematic Screening for Behavior Disorders* (SSBD) procedure (Walker & Severson, 1990). However, this code can also be used for a variety of other purposes within the school setting.

The user of the AET code must read and conceptually master the material in Section II and view and work through the exercises and coding examples provided in the *SSBD Observer Training Videotape* before attempting to record AET observations in classroom settings. The videotape contains instructions and procedures for achieving behavioral mastery of the AET code, as well as three observational situations (vignettes) that provide a consensual accuracy standard for comparing and evaluating codings. Appendix C provides answers to these three coding vignettes.

The AET code also was included in the norming and field testing of the SSBD screening procedure in 16 school districts in 6 states across the country during its development. As a result, the national standardization sample for the AET code consists of approximately 1300 cases on subjects in grades 1-6. Appendix D contains normative tables for the AET code broken down by (a) subject group (i.e., externalizers, internalizers, and normal controls); (b) grade level (grades 1-3, grades 4-6, and combined grades 1-6); and (c) sex of student. These tables are provided for the reader's convenience and use when making comparative judgments regarding a target student's AET behavior level(s).

SECTION ONE:

The Peer Social Behavior Code

I.1 Description of the Coding Form

A copy of the PSB coding form used to record observation data on the playground is presented on the following page. There are two major sections on this form: The Header Section, and The Coding Section.

The Header Section

The top of the observation coding sheet is called the "Header." The header items are necessary for identification of the data collected on each observation sheet and **must be filled in on every sheet of data collected**. Items 2 through 7 can be filled out prior to the observation, and items 1, 8, and 9 at the end of the observation. The header items are presented and described below.

Header:

- (1) Student Name _____
- (2) School _____ (3) Grade _____
- (4) Observer _____ (5) Reliability Observer _____
- (6) Date _____ (7) Time Start _____ (8) Time Stop _____
- (9) Length of Session _____

1. **Student Name:** Write the student's first name and initial of last name.
2. **School:** Write in the name of the school where you are observing.
3. **Grade:** Write in the grade of the child you are observing.
4. **Observer:** Write in your initials.
5. **Reliability Observer:** This is used only when an agreement check is being made. When a check is conducted within an observation session, the calibrating observer's initials should be recorded in this space.
6. **Date:** Write the month, day, and year (e.g., 6/12/90).
- 7.

Start Time: Record the exact time of day the observation session begins. The starting time needs to be indicated on the first observation sheet, but not on subsequent sheets.

8. **Stop Time:** Record the exact time the observation session ends. The stop time should be recorded on the first observation sheet next to **start time**.
9. **Length of Session:** Record the total time observed in minutes and seconds.

The following header example has been filled out in the correct manner. Observer Betty T. James is coding Janie W. at Laurel Hill School in Ms. Brown's second grade class. The date is 4/2/90; the observation takes place during the first recess, which starts at 10:15; and the observation session ends at 10:30. A reliability check was conducted by Jim E. Jones.

- (1) Student Name Janie W.
- (2) School Laurel Hill
- (3) Grade 2nd
- (4) Observer BTJ
- (5) Reliability Observer JEJ
- (6) Date 4/2/90
- (7) Time Start 10:15
- (8) Time Stop 10:30
- (9) Length of Session 15 min.

NOTE: Children will occasionally try to look at observers' clipboards to see which child is being observed. Therefore, the target child's name should be filled in when the observation is completed.

Systematic Screening for Behavior Disorders

PEER SOCIAL BEHAVIOR RECORDING FORM*

Student Name _____ Teacher Name _____
 School _____ Grade _____ Observer _____
 Reliability Observer _____ Date _____ Time Start _____
 Time Stop _____ Length of Session _____

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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Quiz

Below are samples of material for three header sections for observation sheets which are blank. Fill out the blank header sections as though you were the observer in the following situations.

Situation One:

Charlie Brown was observed at Howard School during a 15-minute recess which started at 9:00 a.m. on August 28, 1989. Charlie is in Mr. McQueen's third grade class. Three sheets of data were collected. An agreement check was scheduled with Charlotte T. Pyle, the calibration observer.

Situation Two:

On the morning of January 2, you observe at John Smith's regularly scheduled 10:30 recess. John attends Mesa School and he is in the fifth grade. The recess period is 20 minutes long.

Situation Three:

You and Chris Perkins (the reliability observer) are observing Joshua Green, a student in Mr. Hardman's fourth grade class. You planned to go on May 21, but the observation is postponed until May 25 at 9:00 a.m. Joshua attends Oxnard Elementary where they have 15-minute recess periods.

Situation One

- (1) Student Name _____
(2) School _____ (3) Grade _____
(4) Observer _____ (5) Reliability Observer _____
(6) Date _____ (7) Time Start _____ (8) Time Stop _____
(9) Length of Session _____

Situation Two

- (1) Student Name _____
(2) School _____ (3) Grade _____
(4) Observer _____ (5) Reliability Observer _____
(6) Date _____ (7) Time Start _____ (8) Time Stop _____
(9) Length of Session _____

Situation Three

- (1) Student Name _____
(2) School _____ (3) Grade _____
(4) Observer _____ (5) Reliability Observer _____
(6) Date _____ (7) Time Start _____ (8) Time Stop _____
(9) Length of Session _____

Answers

If your coded header items match the following, you are correct.

Situation One

- (1) Student Name Charlie B
(2) School Howard (3) Grade 3rd
(4) Observer JSH (5) Reliability Observer CTP
(6) Date 8/28/89 (7) Time Start 9:00 am (8) Time Stop 9:15 am
(9) Length of Session 15 minutes

Situation Two

- (1) Student Name John S.
(2) School Meda (3) Grade 5th
(4) Observer JSH (5) Reliability Observer CTP
(6) Date 1/2/90 (7) Time Start 10:30 am (8) Time Stop 10:50 am
(9) Length of Session 20 minutes

Situation Three

- (1) Student Name Joshua O.
(2) School Oxford (3) Grade 4th
(4) Observer JSH (5) Reliability Observer CTP
(6) Date 5/25/90 (7) Time Start 9:00 am (8) Time Stop 9:15 am
(9) Length of Session 15 minutes

The Coding Section

This section of the observation sheet is designed for recording the type of activity and the nature of the social interactive behavior engaged in by the target child. This information is coded in interval rows every 10 seconds.

One row is used for each 10-second interval. There are 40 rows per page, arranged in two columns. Six minutes and 40 seconds of data can be recorded per observation sheet. The observer moves vertically from top to bottom down each column during the recording process. Recording instructions and coding symbols are explained below.

Recording Student Behavior - Each of the 40 rows is divided into five sections or boxes. These boxes are labeled at the top of each column to correspond with categories of social behavior students most frequently engage in during free play. These categories are:

SE: Social Engagement

P: Participation

PLP: Parallel Play

A: Alone

N: No Codeable Response

Behavior in the first two categories (SE and P) may be coded as either positive (+) or negative (-). Behavior in the PLP and A categories is coded by simply checking the appropriate box. No codeable response is coded with a check (✓) when the child is out of view, and with a dot (•) when the child is interacting with an adult.

Observers must understand the code sheet and the abbreviations. The quiz on the following page will indicate whether you have learned the material in this section. If you do not pass the quiz with 100% accuracy, restudy this section and retake the quiz.

Quiz

Fill in the correct answers.

1. Each interval row on the code sheet represent(s) _____ second(s).
2. What do each of the following Interactive Codes stand for?
 - a. PLP: _____
 - b. A: _____
 - c. P: _____
 - d. SE: _____
 - e. N: _____
3. If the target child produces positive verbal or physical behavior, it is coded with a _____.
4. Negative verbal or physical behavior is coded with a _____.
5. Behaviors in the PLP and A categories are coded with a _____.
6. A dot (•) in the N category means _____.
7. A check (✓) in the same N category means _____.

Answers

1. Each interval row on the code sheet represent(s) 10 second(s).
2. What do each of the following Interactive Codes stand for?
 - a. PLP: parallel play
 - b. A: alone
 - c. P: participation
 - d. SE: social engagement
 - e. N: no codeable response
3. If the target child produces positive verbal or physical behavior, it is coded with a +.
4. Negative verbal or physical behavior is coded with a -.
5. Behaviors in the PLP and A categories are coded with a ✓ in appropriate box
6. A dot (•) in the N category means the child is interacting with adult
7. A check (✓) in the same N category means no codeable response.

Definitions of Behavior Codes

Each behavior code category is very specifically defined. In order to code accurately, observers must memorize these definitions. Study the following definitions carefully and refer to them often during training when questions arise about how to code a specific behavior.

Code Category Definitions

Social Engagement (SE) refers to an exchange of social signals between two or more children that involves either verbal or nonverbal interaction. Social engagement is coded when the target child is physically oriented toward another child (or children), is exchanging social signals of a reciprocal, purposeful nature with them, and/or produces verbal behavior in some form during the recording interval.

Participation (P) is coded when the target child is participating in a game or activity (with one or more children) that has a clearly specified and agreed upon set of rules. Examples would be kickball, four-square, dodgeball, soccer, basketball, tetherball, hopscotch, and so forth. Non-examples include tag, jump rope, follow the leader, and other unstructured games.

Parallel Play (PLP) is coded when the target child is engaged in some activity within 5 feet of another child, but is not interacting (either verbally or nonverbally) with him/her. Although the activities the children are engaged in may be identical, the target child and other pupil(s) are behaving independently of each other. Examples of PLP would include playing in a sandbox next to another child, running in a group, or sitting on a swing set with one or more students. A child engaged in self-talk (i.e., verbal behavior not directed toward anyone else) would be coded PLP if the child met the other conditions of the Parallel Play category. NOTE: The target child need not be engaged in an activity similar to that of the children around her/him. For example, the child may be climbing a fence near (within 5 feet of) a sandbox where others are playing.

Alone (A) is coded when the target child is **not within 5 feet of another child**, is neither socially involved nor socially engaged, and is not participating in a game or structured activity with other children. Examples would include sitting, standing, shooting baskets, kicking balls off walls, and so forth. A child engaged in **self-talk** (i.e., verbal behavior not

directed toward anyone else) would be coded A if the child met the other conditions of the Alone category.

No Codeable Response (N) is recorded when the target child's playground behavior cannot be accurately coded in one of the above five categories (e.g., the child is out of view or talking to an adult during recess). This category is coded **only** if there is no codeable behavior for an entire interval.

Quiz

Fill in the blanks with the best answers.

1. What do each of the following abbreviations stand for?

- a. P _____
- b. PLP _____
- c. SE _____
- d. A _____
- e. N _____

For each example, which code would you mark (use the abbreviations)?

- _____ 2. The target child is shooting baskets, while all of his classmates are on the other side of the playground (20 feet away) playing on the swings.
- _____ 3. The class has just gone out for recess and a group of children (including the target child) are talking about what to play.
- _____ 4. A game of softball is going on. The target child is up to bat.
- _____ 5. The target child is sliding down a pole, while some other children play on the jungle gym about two feet away.
- _____ 6. A group of children and the target child are all wrestling on the grass. They are laughing, but no intelligible words are heard.
- _____ 7. The target child is talking to the duty teacher about a problem she is having with another child.
- _____ 8. The target child is racing with another child across the playground, yelling, "watch out for the hot lava!"
- _____ 9. A group of children, including the target child, are riding on a large playground merry-go-round, looking at each other, laughing and screaming.
- _____ 10. During a game they call "Fort" the target child and two other children crawl inside a wooden play structure where they are hidden from view.

Answers

Fill in the blanks with the best answers.

1. What do each of the following abbreviations stand for?

- a. P Participation
- b. PLP Parallel Play
- c. SE Social Engagement
- d. A Alone
- e. N No Codeable Response

For each example, which code would you mark (use the abbreviations)?

- A 2. The target child is shooting baskets, while all of his classmates are on the other side of the playground (20 feet away) playing on the swings.
- SE 3. The class has just gone out for recess and a group of children (including the target child) are talking about what to play.
- P 4. A game of softball is going on. The target child is up to bat.
- PLP 5. The target child is sliding down a pole, while some other children play on the jungle gym about two feet away.
- SE 6. A group of children and the target child are all wrestling on the grass. They are laughing, but no intelligible words are heard.
- N 7. The target child is talking to the duty teacher about a problem she is having with another child.
- SE 8. The target child is racing with another child across the playground, yelling, "watch out for the hot lava!"
- SE 9. A group of children, including the target child, are riding on a large playground merry-go-round, looking at each other, laughing and screaming.
- N 10. During a game they call "Fort" the target child and two other children crawl inside a wooden play structure where they are hidden from view.

Positive and Negative Behavior Codes

Behaviors in the SE and P categories may be coded as either positive or negative in quality. Definitions and specific examples of positive and negative behaviors in each response class are provided below. Guidelines are also given for coding "borderline" situations when it is difficult to determine whether the behavior quality is positive or negative. Quizzes are arranged after each section to test your understanding of the material. If errors occur, restudy the appropriate section(s) until 100% mastery is achieved.

Negative Behavior

This behavior is characterized by the child saying something to another person in a derogatory, uncomplimentary, angry, or cranky manner or engaging in physical behavior intended to harm or coerce another child.

Negative Verbal Behavior - How something is said, rather than its specific verbal content, often determines if the verbal behavior is negative (i.e., if the **tone** of what is said is cranky, impatient, or bossy, the statement would be considered negative).

Examples of negative verbal behavior are provided below.

- a. **Name calling:** Stupid, weirdo, creepy, dummy, show-off, cheater.
- b. **Bossy commands or statements:** Stop it! Shut up! Knock it off! Don't! Pick that up! You can't do that! Stop looking at me! Give me my toy back! Get off of that!
- c. **Statements of rejection:** I don't want to be friends with you, get out of here! We don't want you on our team! It's none of your business! Go away! I wish you would drop dead!
- d. **Possessive statements:** It's my ball! You can't have it, it's mine! This is my jump rope, leave it alone! I was here before you! It isn't yours, I found it! It's my property!
- e. **Accusations:** You're cheating! You made me do that! You stole my ball! See what you did! You wrecked our game!
- f. **Highly critical or uncomplimentary statements:** What a horrible pitch! You can't even write! I'm better than you! What a dumb thing to say! You're clumsy! You did that all wrong! Derisive laughter would be included in this category.
- g. **Aggressive threats:** I'm gonna get you! I'll knock your head off! Do you want this ball through your head! Say that again and I'll pound you!

- h. ***Pestering taunts:*** Child says something over and over again after being asked to stop; child says, "Johnny has a girlfriend" even though it makes Johnny very angry; child sings, "Nya, nya, nya, nya, nya" to make fun of someone.
- i. ***Demanding or quarrelsome behavior:*** The child insists on having own way; argues in a contentious manner or is unreasonably "pushy" (e.g., I was here first! **I'm** right and you know it! No! I won't play if you won't let me have the red checkers! We're going to do it **this** way!).

Negative Physical Behavior - This response class occurs when the child physically contacts or touches another in an aggressive, rough, or painful manner. The contact is frequently punitive, is designed to inflict pain, and occurs against the other child's will. Examples are provided below.

- a. ***Rough or harmful bodily contact:*** Shoving, fighting, pulling hair, hitting forcefully, pinching, spitting at someone, intentionally stepping on a child's hand, pulling roughly at a peer's clothes.
- b. ***Rough, painful or irritating contact with objects or materials:*** Poking with a stick, kicking sand or sawdust in a child's face, throwing rocks at a child in an attempt to hit him, flinging a rope forcefully at someone, holding a rope around a child's neck, splashing a child with water.
- c. ***Physical pestering:*** Kissing or hugging someone who doesn't like it, holding a child when told to let go, patting, touching or tickling someone who clearly dislikes it.

Positive Behavior

This label refers to behavior which ranges from neutral to complimentary and/or openly affectionate. Again, the tone in which a statement is said will often determine whether it is coded positive or negative.

Positive Verbal Behavior - Positive verbal behavior occurs when statements or vocalizations to others are said in a warm, complimentary, and/or non-aggressive fashion. Some examples are given below.

- a. ***Statements of approval:*** "Good job." "Way to go." "You sure are a great runner." "I like your sand castle."
- b. ***Laughter:*** In response to something peer or adult has said or done. The target child giggles when another child is telling a funny story.
- c. ***Neutral statement:*** Discussion about events or people in the child's life. "My family went to Disneyland over the weekend."

- d. **Negotiations:** Constructive arguing to settle disputes. "That is my ball, if you let me swing for five minutes, I'll give you a turn."
- e. **Feedback to other children:** Compliments or criticism which are **not** demeaning or derogatory to the other person. "I liked your speech in class today." "You should not have told on me." "You weren't being very nice today."
- f. **Complaints:** Expressions of frustration or anger which are not personally directed at the interactor. Being assertive or matter-of-fact. "I've wanted to play basketball all day; come play with me."

Positive Physical Behavior - Contact or touching which is **not** rough, annoying, or intended (in the observer's judgment) to hurt another person.

Examples: Holding hands, putting an arm around a child's shoulders, patting, playfully holding onto another child, pulling someone with a rope in a manner which is not rough, swinging someone by the arms in a playful way, throwing a ball at a child without trying to hurt him or her, covering a friend's legs with sawdust with the person's permission, slapping a pal on the back as if to say hello.

Quiz

Examples of positive and negative verbal, physical, and nonverbal interactive behaviors are given below. Code each example by marking the behavior code(s) to the left of the item as: + or -. Compare your answers with those given at the end of the quiz. In order to code child social behavior on the PSB code you will need to be able to identify each of these items with 100% accuracy. Reread the preceding section(s) of the text if errors occur.

- _____ 1. "That's not yours!" the child says, in a sassy voice.
- _____ 2. The child throws a friend's mittens to him, saying, "Here, catch!"
- _____ 3. "Why do I have to be last again?" the child asks his friend.
- _____ 4. The child trips another child.
- _____ 5. Grabbing his friend's coat sleeve, the child says, "Come on, let's race to the fence!"
- _____ 6. The child holds a peer down on the pavement while the peer struggles to get free.
- _____ 7. The child corrects two children who are playing hopscotch by saying, "That's not the right way to play."
- _____ 8. "Hey, you cheater!" the child yells at a child playing hopscotch who has mistakenly stepped on a line.
- _____ 9. The child keeps whispering something in a peer's ear after the peer has angrily asked him to not to do so.
- _____ 10. While playing "cowboys and indians," the child sits on the back of a peer who is pretending to be the "horse."
- _____ 11. The child says to another child, "I **won't** play unless I can have **my** way."
- _____ 12. The child cries when a peer calls him a bad name.

- _____ 13. The child throws a ball into a mud puddle, intentionally splashing two other children standing there.
- _____ 14. "Give me that!" the child says, and grabs a toy from a peer.
- _____ 15. The child says to a friend, "That mean old Billy! He hit me with a rock!"
- _____ 16. The child tries to comfort a peer by holding her hand, but the peer angrily shoves him away.
- _____ 17. "I don't want to play this game anymore," the child calmly explains to someone.
- _____ 18. The child persists in stepping on a peer's heels while standing in line at the slide.
- _____ 19. The child pushes in front of some other children waiting in line.
- _____ 20. The child makes "clucking" noises to irritate another child.
- _____ 21. The child yells, "Hey, Tommy, that's your third out!" to the child at bat.
- _____ 22. While playing Red Rover, the child runs through the other team's line, roughly hitting their joined arms with his fists.
- _____ 23. The child makes a "raspberry" sound to a boy in an effort to annoy him.

Answers

Examples of positive and negative verbal, physical, and nonverbal interactive behaviors are given below. Code each example by marking the behavior code(s) to the left of the item as: + or -. Compare your answers with those given at the end of the quiz. In order to code child social behavior on the PSB code you will need to be able to identify each of these items with 100% accuracy. Reread the preceding section(s) of the text if errors occur.

- 1. "That's not yours!" the child says, in a sassy voice.
- + 2. The child throws a friend's mittens to him, saying, "Here, catch!"
- + 3. "Why do I have to be last again?" the child asks his friend.
- 4. The child trips another child.
- + 5. Grabbing his friend's coat sleeve, the child says, "Come on, let's race to the fence!"
- 6. The child holds a peer down on the pavement while the peer struggles to get free.
- + 7. The child corrects two children who are playing hopscotch by saying, "That's not the right way to play."
- 8. "Hey, you cheater!" the child yells at a child playing hopscotch who has mistakenly stepped on a line.
- 9. The child keeps whispering something in a peer's ear after the peer has angrily asked him to not to do so.
- + 10. While playing Cowboys and Indians, the child sits on the back of a peer who is pretending to be the "horse."
- 11. The child says to another child, "I **won't** play unless I can have **my** way."
- + 12. The child cries when a peer calls him a bad name.

- 13. The child throws a ball into a mud puddle, intentionally splashing two other children standing there.
- 14. "Give me that!" the child says, and grabs a toy from a peer.
- 15. The child says to a friend, "That mean old Billy! He hit me with a rock!"
- + 16. The child tries to comfort a peer by holding her hand, but the peer angrily shoves him away.
- + 17. "I don't want to play this game anymore," the child calmly explains to someone.
- 18. The child persists in stepping on a peer's heels while standing in line at the slide.
- 19. The child pushes in front of some other children waiting in line.
- 20. The child makes "clucking" noises to irritate another child.
- + 21. The child yells, "Hey, Tommy, that's your third out!" to the child at bat.
- 22. While playing Red Rover, the child runs through the other team's line, roughly hitting their joined arms with his fists.
- 23. The child makes a "raspberry" sound to a boy in an effort to annoy him.

Borderline Behaviors

The examples given previously represent both positive (+) and negative (-) child behaviors. Occasionally, however, situations arise where the child's behavior is difficult to categorize as belonging to one or the other of these two classes of behavior. The following are guidelines for use in identifying and recording difficult or borderline situations.

Deteriorating Behavior

Examples: Positive physical behavior which becomes negative when physical contact persists to the point of irritation or intensifies to the point of causing pain.

Rule: To determine whether physical behavior is positive or negative, observe the reaction of the child to whom it is directed, rather than attempting to guess the intent of the target child. For example, if a peer complains that the target child hurt him or her, but the target child says, "I'm only playing!" and continues the behavior, code the behavior as negative.

Mildly Negative Behaviors

Examples: Child uses a mildly grouchy tone of voice, a slightly rough physical behavior, or a modestly impolite gesture.

Rule: Consider the behavior **negative**. It is important that even minor negative behavior be identified and coded.

Happy "Pestering" Behaviors

Examples: Behaviors that seem to be mildly irritating to peers, including "happy" pestering of a peer, such as tugging repeatedly on a child's coat, blowing in face, or teasing.

Rule: Consider the behavior **positive** until either a peer complains to the child or it becomes clear that the child is intentionally annoying the peer—at which point, consider any such continuing behavior **negative**.

"Accidental" Negative Behaviors

Examples: Behaviors for which it's difficult to determine if the child is being intentionally negative, including "accidentally" bumping into another child in a rough manner or "unintentionally" stepping on a child's toy, paper, or property.

Rule: If you are in doubt as to the intentional nature of the event, consider the behavior negative.

NOTE: Behaviors which cause harm to others and which are truly accidental will usually go unnoticed by the target child (target child will not be aware she stepped on a peer's fingers) or will get a surprised reaction from the target child ("Oh, sorry!"). Accidental negative behaviors will not be repeated.

Defensive/Nonaggressive Reactions to a Peer's Negative Behavior

Examples: A peer holds the target child down on the ground—the child struggles to get free without deliberately hurting the peer, cries, and says, "Lemme go!" Then the child struggles free and says, "Next time, leave me alone!" A peer grabs a ball from the child; the child sternly says to the peer, "Give it back or I'll tell the teacher!"

Rule: Consider the child's behavior to be **positive**, as the responses allowed the child to defend his/her rights without being unduly aggressive.

Defensive/Aggressive Reactions to a Peer's Negative Behavior

Examples: A peer holds the target child down on the ground—the child angrily kicks at the peer, scratches, cries, and says, "Lemme go, or I'll smash your face!" or struggles free and socks the peer. A peer grabs a ball from the child; the child grabs it back and angrily says, "Get your own ball!"

Rule: Consider the child's responses **negative**, as they were retaliative and/or more aggressive than necessary (for the protection of the child's rights) and would likely serve to maintain or accelerate the peer's negative behavior.

NOTE: The distinction between defensive behavior which is aggressive or retaliative and behavior which is simply self-defensive is always difficult to determine. A judgment must be made in each case as to whether the child is assertively standing up for his/her rights

(i.e., positive behavior) or responding in an unreasonably aggressive manner, given the situation (i.e., negative behavior).

To clarify this distinction, self-protective behavior or assertive expressions of anger or feelings are considered to be acceptable responses, as long as the child's manner, words, and/or tone of voice are not abusive or retaliative. That is, if a child is roughly knocked down by a peer, saying "Cut it out!" and scowling, or even threatening to tell the teacher, are acceptable self-defensive responses; however, if the child were to engage in name calling, hit back, or threaten to harm the peer in retaliation, the child would be behaving in a counter-aggressive way to the other child. Such aggressive reactions are likely to stimulate further negative behavior by the peer and are to be considered negative.

Quiz

Read the following examples of borderline behavior and mark each item with the appropriate behavior code.

- _____ 1. The child playfully and repeatedly pokes at a peer's stomach; both the child and the peer seem to enjoy it.
- _____ 2. The peer finally tires of the game and asks the child to stop, but the child continues to poke at him.
- _____ 3. While being held down on the ground by a peer, the child says, "Lemme go!" and struggles to get free.
- _____ 4. The child says to a peer who is cheating in a game, "Awe, come on, Harold; either play fair or I'll tell the teacher!"
- _____ 5. After a peer hits him, the child calls the peer a bad name.
- _____ 6. After a peer pinches the target child, the child cries, "Ouch, that hurts!" and slugs him on the arm.
- _____ 7. In a game of chase the target child bumps into a peer, apparently accidentally. The peer says, "Ouch!" The target child says, "Oops, sorry" and they continue to play.
- _____ 8. In a game of chase, the target child positions herself so that she will collide with another student. The peer says, "Ouch!" and the target child stops playing, more interested in the collision than in the game.

Answers

Read the following examples of borderline behavior and mark each item with the appropriate behavior code.

- _____ 1. The child playfully and repeatedly pokes at a peer's stomach; both the child and the peer seem to enjoy it.
- _____ 2. The peer finally tires of the game and asks the child to stop, but the child continues to poke at him.
- _____ 3. While being held down on the ground by a peer, the child says, "Lemme go!" and struggles to get free.
- _____ 4. The child says to a peer who is cheating in a game, "Awe, come on, Harold; either play fair or I'll tell the teacher!"
- _____ 5. After a peer hits him, the child calls the peer a bad name.
- _____ 6. After a peer pinches the target child, the child cries, "Ouch, that hurts!" and slugs him on the arm.
- _____ 7. In a game of chase the target child bumps into a peer, apparently accidentally. The peer says, "Ouch!" The target child says, "Oops, sorry" and they continue to play.
- _____ 8. In a game of chase, the target child positions herself so that she will collide with another student. The peer says, "Ouch!" and the target child stops playing, more interested in the collision than in the game.

Rules and Guidelines for Recording Child Behavior

Interval Recording Method

Using an Auditory Timing Device (ATD), the target child's behavior is observed continuously for 10 seconds, and if codeable behavior occurs, it is coded in the appropriate section of the interval row on the observation sheet. If 10 seconds pass without any codeable behavior occurring, "N" is checked on that interval row. When the next "beep" is heard, a new interval begins and the observation recording process is repeated.

If you do not have an ATD, you can make your own by recording your voice on an audio cassette tape at 10 second intervals. Record yourself saying, "one, two, three, etc." every 10 seconds and then use this tape in a small portable cassette player to prompt you to record each 10 second interval. Record a cassette with enough intervals to cover a 15-minute observation period or the *Auditory Timing Tape* may be purchased with the *SSBD Complete Kit*.

With the interval recording system, **whenever** a codeable behavior occurs during an interval, it is recorded on the row for that interval—regardless of whether it started in a previous interval or whether it lasts for only a portion of that interval. A coded behavior may last from 1 to 10 seconds and may occur several times within an interval, but the behavior code category is recorded only once.

Rules for Recording Interactive Behavior with Peers

There are certain rules used in recording interactive behavior on the PSB code which are intended to simplify the task of recording data. These rules are described below, along with specific examples for each.

Negative Dominance Rule - When negative and positive interactive responses of the **same** behavior code category occur together within any given 10 second interval, only the negative response is recorded in that interval. For example, if a child exhibits both a positive and negative physical behavior to peers in the same 10 second interval (e.g., child touches a peer softly, then punches another child in the stomach), only the **negative** behavior is recorded.

Repeated Behavior Rule - When more than one instance of the **same** behavior code category is observed within an interval, the behavior can be recorded only **once**. This rule is illustrated by the following coded examples: the target child is verbally negative several times to various peers, record SE; or the child taps several children on the back, record SE.

Dominant Behavior Rule - No code category can be coded more than once during each 10 second interval. If the target child changes from one activity to another (e.g., SE to P) during a 10 second interval, record only one code—the code for the activity that dominated the interval.

Structured Activity Definition - SE can be coded **only** under free play conditions at recess (i.e., the child is not engaged in a game or structured activity of any kind). A structured activity is defined as one which has prearranged rules which are clear to participants and observers.

Example: A game of tag in which the rules are clear and agreed upon by all participants is coded P. Some games of chase resemble tag, but have vague rules regarding who chases whom, and for how long. Such activity would be coded SE.

Activity Change Rule - Occasionally structured activities are interrupted by disputes over rules, injuries, interruptions by teachers, the need to repair or retrieve a piece of equipment, etc. When this occurs for more than one full interval, the behavior is coded in the SE code category until play is resumed. In the interval in which play resumes, the dominant behavior rule applies (i.e., the behavior that dominates the interval [SE or P] is coded).

Example: A game of foursquare stops for 2 minutes while a group of players argues over whether the server is out. After one full interval of arguing, the behavior is coded SE until play resumes, even though the players remain on the foursquare court.

To illustrate the process of coding peer interactive behavior, a description of various behaviors and the manner in which they are coded is presented on the next page. As you read each item, make a mental note of how you would record Mary's behavior for that interval and then check your answer with the correct coding to the left of each example. If you disagree with the coded answers, read the recording rules previously given until you understand how to code each set of behaviors correctly.

Examples

<i>Code</i>	<i>Behavior Observed</i>
SE-	1. Mary joins a group playing in the sandbox. She looks at the sand castle, kicks it over and says, "That's not so hot!"
SE-	2. A peer jerks Mary's hand; Mary says, "Please don't!" and slugs him hard.
SE-	3. Mary and the peer begin to wrestle very roughly, and Mary hits him repeatedly.
SE+	4. While the peer holds her down, Mary gently tries to free herself.
SE-	5. The peer hits Mary hard and runs away. Mary screams, "I'll get you, you creep!" sticks out her tongue at him, and throws a rock at his retreating back.
SE+	6. Finally the child gets Mary to laugh. She gets up, smiling at the peer.
SE-	7. "Thank you," she says smiling, and pats him on the shoulder. Then she runs over and roughly shoves another peer, calling him a bad name.
SE-	8. Mary joins a hopscotch game by grabbing the rock from a player who is about to start her turn.
SE+	9. The other players protest and Mary goes to the end of the line.
SE-	10. One of the hopscotch players is unhappy with her throw and takes it over. Mary screams, "You can't do that! Cheater! Cheater! Cheater!"
N•	11. Mary leaves the line and goes over to tell the duty teacher about the problem.
A	12. Mary wanders off to a remote corner of the playground where she seems to be daydreaming.

Quiz

Read the following descriptions of child interactive behavior and code each item by marking the appropriate behavior code categories below. Compare your codings with the answers given on page 37.

1. The target child, Billy, runs over to a friend, smiles, says, "Hi!" and shakes his hand.
2. Another peer walks over and takes Billy's other hand. The three children walk out to the baseball diamond, arm in arm.
3. Billy frees himself, says, "Watch this!" and starts to run in circles. "Come on, try it!" he says to his friends.
4. The other children decline. Billy says, "Come on! Do it!" in a bossy voice. He scowls and takes on a disapproving stance.
5. Billy stops and while holding onto one peer, grabs the other's arm and jerks it hard.
6. The peer begins to cry. Billy calls him a baby and both he and the other child laugh together at this.
7. Billy and the child walk off, arm in arm, talking and laughing.
8. Two other boys come up and initiate a game of tag. Billy tags two of the boys in rapid succession, then hits the third boy so hard he falls down.
9. Billy runs away to the sand box. He kneels among several other children and digs in the sand, making truck noises.
10. Billy says to the boy next to him, "Hey, you're wrecking my road!"

Interval Number	SE +-	P +-	PLP ✓	A ✓	N •✓
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Interval Number	SE +-	P +-	PLP ✓	A ✓	N •✓
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Answers

Read the following descriptions of child interactive behavior and code each item by marking the appropriate behavior code categories below. Compare your codings with the answers given on page 37.

1. The target child, Billy, runs over to a friend, smiles, says, "Hi!" and shakes his hand.
2. Another peer walks over and takes Billy's other hand. The three children walk out to the baseball diamond, arm in arm.
3. Billy frees himself, says, "Watch this!" and starts to run in circles. "Come on, try it!" he says to his friends.
4. The other children decline. Billy says, "Come on! Do it!" in a bossy voice. He scowls and takes on a disapproving stance.
5. Billy stops and while holding onto one peer, grabs the other's arm and jerks it hard.
6. The peer begins to cry. Billy calls him a baby and both he and the other child laugh together at this.
7. Billy and the child walk off, arm in arm, talking and laughing.
8. Two other boys come up and initiate a game of tag. Billy tags two of the boys in rapid succession, then hits the third boy so hard he falls down.
9. Billy runs away to the sand box. He kneels among several other children and digs in the sand, making truck noises.
10. Billy says to the boy next to him, "Hey, you're wrecking my road!"

Interval Number	SE +-	P +-	PLP ✓	A ✓	N •✓
1	+				
2	+				
3	+				
4	-				
5	-				
6	-				
7	+				
8	-				
9			✓		
10	+				

Interval Number	SE +-	P +-	PLP ✓	A ✓	N •✓
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Steps to Recording Observations

A summary of the steps involved in recording observation sessions is provided below.

- Locate the target child.
- Record the time when you begin the observation session at the top of the form.
- Turn on the auditory timing device or pre-recorded audio cassette tape.
- When the "beep" sounds or interval numbers begins on the audio tape start observing the child's behavior.
- Observe the target child's behavior carefully during the 10-second interval and record the code category observed near the end of the interval. Continue recording in each consecutive 10-second interval moving downward through the two columns on the recording forms until the observation is terminated.
- Record the stop time and compute the length of the session in minutes.
- Fill out the rest of the header.
- Compute summary scores.

You can easily compute a number of summary scores from your observations by simply dividing the total number of intervals which you observed during the observation session into the intervals recorded under different categories. For example, to compute the percent of time which the target child spent in Social Engagement, you would divide the total number of intervals observed in the session (say 240) into the number recorded under the SE category (say 90) and multiply the result by 100. The percent SE is 90 divided by 240 x 100 = 37.5%. The following summary scores can be computed from the data you recorded and plotted on the summary sheet on page 40.

% Social Engagement	= SE intervals divided by total intervals x 100.
% Social Interaction	= SE + P intervals divided by total intervals x 100.
% Participation	= P intervals divided by total intervals x 100.
% Parallel Play*	= PLP intervals divided by total intervals x 100.
% Alone*	= A intervals divided by total intervals x 100.
% No Codeable Response	= N intervals divided by total intervals x 100.
% Positive Interaction	= SE (+) intervals divided by total intervals x 100.
% Negative Interaction	= SE (-) intervals divided by total intervals x 100.
Total % Positive Behavior	= SE (+) and P (+) intervals divided by total intervals x 100.
Total % Negative Behavior*	= SE (-) and P (-) intervals divided by total intervals x 100.

* Denotes codes used in calculating passing criteria for Stage Three SSBD.

Practice Recording Exercises

A series of practice exercises is provided on the following pages. The exercises will give you an opportunity to test and refine your coding skills. Code each situation, interval by interval, in the boxes provided and check that your completed recordings agree with those at the end of the exercises. Restudy the appropriate sections of the text relating to errors made.

Exercise 1: Observation of "Sandy"

Code the following situation intervals on the following page.

Interval	Behavior Observed
1	Sandy is quietly digging in the sandbox beside another child.
2	She asks the peer if she can use his pail and shovel.
3	The peer explains politely that he is using them and she can go get her own.
4	Sandy grabs the peer's shovel away. Peer goes to tell recess supervisor.
5	Sandy plays happily with the pail and shovel.
6	The peer comes back and grabs the shovel out of her hands and they struggle over it.
7	Sandy kicks the peer.
8	Recess supervisor tells Sandy to give the shovel back. Sandy gives the shovel back to the peer, the peer thanks her.
9	The teacher leaves and the two children work quietly together digging a hole in the sand.
10	Suddenly Sandy says, "Dumb old Leland," and throws sand at him. The peer leaves.
11	Sandy asks another friend if he wants to play. The friend says, "Okay."
12	Sandy and her friend pretend they are building a city and talk to each other nicely about where things should go.

Coding Form: Exercise 1

Observation of "Sandy"

Compute summary scores and compare with Observation Summary Sheet on page 43.

Systematic Screening for Behavior Disorders PEER SOCIAL BEHAVIOR RECORDING FORM*

Student Name _____ Teacher Name _____

School _____ Grade _____ Observer _____

Reliability Observer _____ Date _____ Time Start _____

Time Stop _____ Length of Session _____

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

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Observation Summary Sheet
Exercise 1, Observation of "Sandy"

**Systematic Screening for Behavior Disorders
PEER SOCIAL BEHAVIOR
OBSERVATION SUMMARY SHEET***

Student Name _____

School _____ Grade _____

Dates Observed _____ and _____

Session #1

Session #2

	Number of Intervals*	Observation #1**	Number of Intervals*	Observation #2**	Average of 1 and 2
1. Social Engagement (SE)	_____	_____ %	_____	_____ %	_____ %
2. Participation (P)	_____	_____ %	_____	_____ %	_____ %
3. Parallel Play (PLP)	_____	_____ %	_____	_____ %	_____ %
4. Alone (A)	_____	_____ %	_____	_____ %	_____ %
5. No Codeable Response (N)	_____	_____ %	_____	_____ %	_____ %
6. Social Interaction (SI)	_____	_____ %	_____	_____ %	_____ %
7. Negative Interaction (NI)	_____	_____ %	_____	_____ %	_____ %
8. Positive Interaction (PI)	_____	_____ %	_____	_____ %	_____ %
9. Total Positive Behavior	_____	_____ %	_____	_____ %	_____ %
10. Total Negative Behavior	_____	_____ %	_____	_____ %	_____ %

* Enter the number of intervals recorded for each category.

** Enter the percentage of time spent for each category by dividing the total number of intervals that you observed during the observation session into the intervals recorded under different categories and multiplying by 100.

Key Coding Form: Exercise 1
Observation of "Sandy"

Compare your coded recording form with the key coding of this example below.

Systematic Screening for Behavior Disorders
PEER SOCIAL BEHAVIOR RECORDING FORM*

Student Name Sandy Teacher Name _____
 School _____ Grade _____ Observer _____
 Reliability Observer _____ Date _____ Time Start _____
 Time Stop _____ Length of Session _____

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1			✓		
2	+				
3	+				
4	-				
5				✓	
6	-				
7	-				
8					•
9	+				
10	-				
11	+				
12	+				
13					
14					
15					
16					
17					
18					
19					
20					

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

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Systematic Screening for Behavior Disorders

PEER SOCIAL BEHAVIOR

OBSERVATION SUMMARY SHEET*

43

Exercise 2: Observation of "Joe"

Code the following situation intervals on the following page.

Interval	Behavior Observed
1	Joe walks aimlessly around playground. He is within three feet of other people.
2	He walks through a mud puddle, getting his feet all wet.
3	Joe purposely kicks mud on a child standing nearby.
4	Peer says, "Hey, watch it, stupid!" and Joe gives him a smile.
5	The peer angrily grabs Joe's arm and Joe tries to pull away.
6	Struggling with one another, both children exchange repeated blows.
7	Another peer calmly tries to break up the fight, but Joe begins to hit both children.
8	The recess supervisor grabs the two boys and says angrily, "You two stop this or I'll take you to the office!"
9	The recess supervisor leaves and the boys resume their arguing and hitting.
10	The recess supervisor sharply tells both children to sit on the bench for the rest of recess.
11	As the playground supervisor watches, Joe starts to walk toward the bench with the peer following about 3 feet behind him.
12	When the recess supervisor turns away, both children sneak behind the building, out of view of the recess supervisor and observer.
13	The observer follows the children. They quietly discuss what to do next.
14	Joe goes under a covered play area, calling the peer to follow. The peer goes into the play area.
15	Once in the play area, Joe jumps on his peer. The peer is trying hard to get away.
16	The recess supervisor finds the children and sharply reprimands them.

Coding Form: Exercise 2,
Observation of "Joe"

Code Joe's behavior on this recording form and compare with the Key on page 47.

**Systematic Screening for Behavior Disorders
PEER SOCIAL BEHAVIOR RECORDING FORM***

Student Name _____ Teacher Name _____

School _____ Grade _____ Observer _____

Reliability Observer _____ Date _____ Time Start _____

Time Stop _____ Length of Session _____

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

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Observation Summary Sheet
Exercise 2, Observation of "Joe"

Compute summary scores and compare with Key on page 48.

Systematic Screening for Behavior Disorders
PEER SOCIAL BEHAVIOR
OBSERVATION SUMMARY SHEET*

Student Name _____

School _____ Grade _____

Dates Observed _____ and _____

Session #1

Session #2

	Number of Intervals*	Observation #1**	Number of Intervals*	Observation #2**	Average of 1 and 2
1. Social Engagement (SE)	_____	_____ %	_____	_____ %	_____ %
2. Participation (P)	_____	_____ %	_____	_____ %	_____ %
3. Parallel Play (PLP)	_____	_____ %	_____	_____ %	_____ %
4. Alone (A)	_____	_____ %	_____	_____ %	_____ %
5. No Codeable Response (N)	_____	_____ %	_____	_____ %	_____ %
6. Social Interaction (SI)	_____	_____ %	_____	_____ %	_____ %
7. Negative Interaction (NI)	_____	_____ %	_____	_____ %	_____ %
8. Positive Interaction (PI)	_____	_____ %	_____	_____ %	_____ %
9. Total Positive Behavior	_____	_____ %	_____	_____ %	_____ %
10. Total Negative Behavior	_____	_____ %	_____	_____ %	_____ %

* Enter the number of intervals recorded for each category.

** Enter the percentage of time spent for each category by dividing the total number of intervals that you observed during the observation session into the intervals recorded under different categories and multiplying by 100.

Key Coding form: Exercise 2,
Observation of "Joe"

Systematic Screening for Behavior Disorders PEER SOCIAL BEHAVIOR RECORDING FORM*

Student Name Joe S. Teacher Name _____
 School _____ Grade _____ Observer _____
 Reliability Observer _____ Date _____ Time Start _____
 Time Stop _____ Length of Session _____

Interval Number	+-	++	✓	✓	• ✓
	SE	P	PLP	A	N
0-1			✓		
2			✓		
3	-				
4	+				
5	+				
6	-				
7	-				
8					•
9	-				
10					•
11					•
12					✓
13	+				
14	+				
15	-				
16					•
17					
18					
19					

Interval Number	+-	++	✓	✓	• ✓
	SE	P	PLP	A	N
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

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Systematic Screening for Behavior Disorders PEER SOCIAL BEHAVIOR OBSERVATION SUMMARY SHEET*

Dates Observed _____ and _____
Session #1 Session #2

301

Exercise 3: Observation of "Paul"

Code the following situation intervals on the SSBD Recording form on page 51.

Interval	Behavior Observed
1	Paul comes out on playground and waves to a friend.
2	Paul goes over to another peer and says, "Hi, Tom." Tom looks up. He gives Paul the finger.
3	Tom says, "Get out of here!" Paul ignores him and walks away.
4	Paul walks by two girls playing tetherball and jokingly pretends to hit the ball.
5	One of the girls says, "Please stop that, Paul," but he steps in and begins to hit the tetherball around the pole.
6	Paul continues to hit the ball while one of the girls complains to the recess supervisor. The supervisor comes over and asks Paul to stop pestering the girls.
7	Paul runs toward the basketball court. No other children are close by.
8	He watches an ongoing basketball game from a distance of 6 or 8 feet.
9	He asks to join the game and several kids give their permission.
10	He dribbles the ball and passes it over to another player.
11	The peer passes the ball back to Paul, who throws it into the basket.
12	As Paul continues to play the recess supervisor comes over and says, "That was a fantastic shot, Paul! You really are getting good!"
13	Paul thanks the recess supervisor and walks away. He walks through some kids who are playing in the dirt, purposely stepping on one of their toys.
14	The peers angrily tell him, "Get out of there, Paul!" Paul sticks out his tongue at them, and the recess supervisor reprimands him for being uncooperative.
15	Paul walks over to the fence, 4 yards away, and throws several rocks at it.
16	He climbs up on the fence and looks around.

- 17 A peer comes over and climbs on the fence. Paul tells him that he shouldn't climb on the fence.
- 18 Paul throws rocks at the peer, the child gets hit by a rock and runs away crying.
- 19 Paul climbs up on the fence again. He begins to shout obscenities at some children who are walking close by.
- 20 While he's up on the fence, he throws some more rocks at the children.
- 21 He gets off the fence and begins to talk to one of the boys in the group. They shake hands.
- 22 Then one of the other boys slugs Paul hard. Paul yells, "Ouch!" and starts to cry. He kicks dirt on the other boy's shoes.
- 23 The recess supervisor comes over, reprimands **both** boys for fighting, then consoles Paul.
- 24 Paul runs off and gets in line to play kickball.

Coding Form: Exercise 3,
Observation of "Paul"

Code Paul's behavior on this recording form and compare your coding with the Key on page 53.

**Systematic Screening for Behavior Disorders
PEER SOCIAL BEHAVIOR RECORDING FORM***

Student Name _____ Teacher Name _____

School _____ Grade _____ Observer _____

Reliability Observer _____ Date _____ Time Start _____

Time Stop _____ Length of Session _____

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

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Observation Summary Sheet
Exercise 3, Observation of "Paul"

Compute summary scores and compare with Observation Summary Sheet on page 54.

Systematic Screening for Behavior Disorders
PEER SOCIAL BEHAVIOR
OBSERVATION SUMMARY SHEET*

Student Name _____

School _____ Grade _____

Dates Observed _____ and _____

Session #1

Session #2

	Number of Intervals*	Observation #1**	Number of Intervals*	Observation #2**	Average of 1 and 2
1. Social Engagement (SE)	_____	_____ %	_____	_____ %	_____ %
2. Participation (P)	_____	_____ %	_____	_____ %	_____ %
3. Parallel Play (PLP)	_____	_____ %	_____	_____ %	_____ %
4. Alone (A)	_____	_____ %	_____	_____ %	_____ %
5. No Codeable Response (N)	_____	_____ %	_____	_____ %	_____ %
6. Social Interaction (SI)	_____	_____ %	_____	_____ %	_____ %
7. Negative Interaction (NI)	_____	_____ %	_____	_____ %	_____ %
8. Positive Interaction (PI)	_____	_____ %	_____	_____ %	_____ %
9. Total Positive Behavior	_____	_____ %	_____	_____ %	_____ %
10. Total Negative Behavior	_____	_____ %	_____	_____ %	_____ %

* Enter the number of intervals recorded for each category.

** Enter the percentage of time spent for each category by dividing the total number of intervals that you observed during the observation session into the intervals recorded under different categories and multiplying by 100.

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Key Coding Form: Exercise 3,
Observation of "Paul"

**Systematic Screening for Behavior Disorders
PEER SOCIAL BEHAVIOR RECORDING FORM***

Student Name Paul Teacher Name Mc Queen
 School Patterson Grade 2 Observer Kayn
 Reliability Observer _____ Date _____ Time Start _____
 Time Stop _____ Length of Session _____

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1	+				
2	+				
3	+				
4	+				
5	-				
6	-				
7				✓	
8				✓	
9	+				
10		+			
11		+			
12		+			
13	-				
14	-				
15				✓	
16				✓	
17	+				
18	-				
19	-				
20	-				

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
21	+				
22	-				
23					•
24	+				
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

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Key Observation Summary Sheet
Exercise 3, Observation of "Paul"

Systematic Screening for Behavior Disorders
PEER SOCIAL BEHAVIOR
OBSERVATION SUMMARY SHEET*

Student Name Paul L.

School _____ Grade _____

Dates Observed _____ and _____

Session #1

Session #2

	Number of Intervals*	Observation #1**	Number of Intervals*	Observation #2**	Average of 1 and 2
1. Social Engagement (SE)	_____	<u>16.7</u> %	_____	_____ %	_____ %
2. Participation (P)	_____	<u>12.5</u> %	_____	_____ %	_____ %
3. Parallel Play (PLP)	_____	<u>0</u> %	_____	_____ %	_____ %
4. Alone (A)	_____	<u>16.7</u> %	_____	_____ %	_____ %
5. No Codeable Response (N)	_____	<u>4.2</u> %	_____	_____ %	_____ %
6. Social Interaction (SI)	_____	<u>79.1</u> %	_____	_____ %	_____ %
7. Negative Interaction (NI)	_____	<u>33.3</u> %	_____	_____ %	_____ %
8. Positive Interaction (PI)	_____	<u>33.3</u> %	_____	_____ %	_____ %
9. Total Positive Behavior	_____	<u>45.8</u> %	_____	_____ %	_____ %
10. Total Negative Behavior	_____	<u>33.3</u> %	_____	_____ %	_____ %

* Enter the number of intervals recorded for each category.

** Enter the percentage of time spent for each category by dividing the total number of intervals that you observed during the observation session into the intervals recorded under different categories and multiplying by 100.

Calculating Reliabilities

Rationale

The term "reliability" has been frequently used to describe the extent to which two or more observers agree with respect to their codings of child behavior. Johnson and Bolstad (1973), however, suggest that this is an inappropriate use of the term "reliability." They argue that the key ingredient in the concept of reliability is consistency—a characteristic which may or may not be present in observation data.

Johnson and Bolstad (1973) prefer to talk about **observer agreement** and **observer accuracy** with respect to observation data. Observer agreement means that two observers agree in their respective codings of child behavior. That is, both observers simultaneously observe and record the same child's behavior, whether in videotaped sequences or within **in vivo** situations. Line by line, response by response comparisons in the recordings are then made. If the two observers' recordings are identical, then an agreement is scored for that unit of time interval. However, simply because two observers' recordings agree doesn't mean that they are accurate. The two observers could agree on what they see, but could both be wrong in terms of their accuracy or validity. This is especially likely to happen with naive, inexperienced observers.

A measure of observer accuracy is needed in order to properly evaluate the adequacy of an observer's recordings or codings. In order to accomplish this task, an accuracy standard is needed for use in evaluating observers' recordings. This can be established in one of several ways. For example, one or more **expert** observer can code a videotaped sequence of child behavior and the resultant recordings can be used as a standard for judging observer accuracy. Another method is for the observer trainer, who is an expert on the code being used, to simultaneously code the same behavioral sequences as the observer(s). The observer trainer's recordings are then used as a comparative standard for judging the accuracy of the observer's recordings. In either case, the recordings of a highly experienced expert are used as an accuracy standard.

As a rule, it is most desirable to establish observer accuracy against a standard before addressing the question of inter-observer agreement. Therefore, each observer's recordings should be compared individually with an accuracy standard in the initial stages of training. After all observers in training have achieved an acceptable accuracy level, procedures for assessing inter-observer agreement can be initiated.

A usual procedure for establishing inter-observer agreement in training is to assign observers to recording exercises in pairs. Both observers simultaneously code the same behavioral sequences and compare their recordings. Once an acceptable degree of agreement is achieved between a given pair of observers, they are then re-assigned to other pairs and the procedure is repeated. This pairing process is continued until each observer has achieved acceptable inter-observer agreement with all other observers.

Once training has been completed, it is essential that both observer accuracy and inter-observer agreement continue to be monitored closely. The observer trainer (or expert observer) should occasionally compare observations on an individual basis to maintain accuracy levels. In addition, inter-observer agreement among pairs of observers should be monitored frequently and individual observers rotated on a regular basis to continually expose observers to the standards and coding idiosyncrasies of all observers within the observer pool. These calibration and rotational procedures will operate to maintain effective levels of accuracy and agreement if implemented correctly.

Calculation Procedures

An agreement level of 80% is considered the **minimally** acceptable criterion or standard of agreement on the PSB code. Procedures for calculating agreements are illustrated below.

When inter-observer agreement is being measured, two observers simultaneously, but independently, record the behavior of the same child in the same intervals on their respective coding sheets. Each interval in the observation session is compared for the two observers. If both choice of code category and quality of interaction (positive or negative) are identical for the two observers, that interval is marked as an agreement. However, entries for an interval are different, then the interval is marked as a disagreement. Follow the steps below in computing agreement.

1. Compare your observation sheet interval by interval with your co-observer. Circle the numbers of the intervals on which you disagree.
2. Count the number of disagreements and subtract this number from the total number of intervals marked to determine the number of agreements.
3. Compute the agreement level by dividing the number of agreement intervals by the total number of intervals (i.e., agreements plus disagreements). Multiply this figure by 100.

$$\frac{\text{Agreement}}{\text{Agreements} + \text{Disagreements}} \times 100 = \text{Percent of Agreement}$$

Exercise in Computing Observation Agreement

Instructions: Calculate the percent of agreement between the two observers below. Compare your calculations to the Key on page 59.

OBSERVER A

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1	+				
2	+				
3	-				
4	-				
5		+			
6		+			
7		+			
8		-			
9		-			
10					•
11				✓	
12			✓		
13			✓		
14	-				
15	-				
16	+				
17	-				
18			✓		
19			✓		
20			✓		

OBSERVER B

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1	+				
2	+				
3	⊕				
4	-				
5	⊕				
6		+			
7		+			
8		-			
9		⊕			
10					•
11					⊙
12				⊙	
13			✓		
14	-				
15	-				
16	+				
17	-				
18			✓		
19			✓		
20				⊙	

Key to example on calculating inter-observer agreement:
Percent of Agreement Between Observers

$$\frac{\text{Agreement} = 14}{\text{Agreements (14) + Disagreements} = (6)} = \frac{14}{20} \times 100 = 70\%$$

$$\frac{14}{20} = .7 \times 100 = 70\% \text{ Percent of Agreement}$$

Field Procedures

This unit presents a set of guidelines for collecting data on the PSB code in the school setting. The guidelines are designed to assure smooth data collection and to help establish and maintain good relationships with school personnel. An outline is included in this unit which presents steps and procedures to be followed in the data collection process. The outline provides an overview of the data collection process from start to finish.

Appearance

Observers should dress in accordance with the public school dress code. In general, this means that you should be neatly dressed and groomed. Clothes should be kept clean, without holes or patches, not overly casual or flamboyant. Keep hair neatly combed; long "unruly" hair should be pulled back. Dress in a way that does not draw undue attention to yourself.

Before an Observation

1. Check the observation schedule. This schedule should include the names of the children you are to observe, the school and teacher, and the time of each observation.
2. Collect and prepare the materials you will need in conducting observations. These are (1) a properly functioning Auditory Timing Device (ATD) and an earphone, (2) an adequate supply of PSB coding forms, (3) two sharpened pencils, (4) an extra battery for your ATD, (5) a map of the school's location, and (6) an observation schedule for the child you are observing.
3. Be sure you know where the school is located.
4. Plan to arrive at the school 10 minutes prior to the time the observation begins.

At the School

1. Follow the rules which generally apply to visitors in a school. Check in with the secretary at the office. Introduce yourself as an observer and say you will be observing **(subject's name)** in **(teacher's name)** class during recess.
2. After reporting to the office, go to the playground or wherever the recess is being held (e.g., gym, classroom). Introduce yourself to the playground supervisor or teacher in charge and ask this person to discreetly identify the child you are observing.
3. **Adjust to the playground before observing.** Get a "feel" for the playground's physical layout, particularly the play equipment and the boundaries.
4. **Keep interactions with children at a minimum.** For obvious reasons, it is important that the children do not distract you during data collection. When children come out to recess, they might express curiosity as to who you are and what you are doing on the playground. If a child attempts to talk to you, ignore him/her. If the child persists, tell him/her, "I can't talk when I am working," or "I'm busy and I can't talk."
5. **Choose an advantageous observation location.** Position yourself so that you can observe what the child and other children are doing and saying without attracting undue attention. Usually, good observation spots are behind and to the side of the child. Do not get in the children's way or interfere with the games or activities in progress. If you find that you can't see what is happening, move to a better position, maintaining a reasonably discreet distance. When the child moves to a different place on the playground, do not "give yourself away" by following the child too closely or by moving too abruptly. Do not stare; instead, observe the child's behavior out of the "corner of your eye." Discretion during your observation will increase the likelihood that the data you obtain will reflect the child's **usual** behavior.
6. Minimal conversation should take place between you and other school personnel. If you are asked about the child's performance, just say that you don't have access to that information, and refer them to the consultant.
7. If a reliability check is being made, record the calibrator's initials under "Reliability Observer" at the top of the sheet. Use the same ATD (use two earphones) to assure that you begin recording at the same time.

Following the Observation

When the observations have been completed, you should do the following:

1. Make sure coding sheet headers are filled out completely.
2. Check your reliabilities (observer agreement level) if you have a calibrator and calculate the coding summary scores.
3. File all completed data in the appropriate folders.
4. Be sure the ATD is turned off and the equipment is put away properly.

SECTION TWO

The Academic Engaged Time Code

Observation and Recording of Academic Engaged Time

Academic Engaged Time (AET), sometimes referred to as academic learning time, is a very important indicator of a pupil's academic success and general adjustment to the requirements of academic settings. AET refers to the amount of actual time a student spends actively engaged, attending to, and working on relevant academic material. Many students with **externalizing** and **internalizing** behavior disorders experience difficulties with normal academic demands that are appropriate to their abilities.

Using the definition and examples of academic engaged time provided below, observe and record the target pupil's AET during two 15- to 20-minute **independent seatwork periods** wherein the student is expected to be working on assigned academic material(s). Use a stopwatch and the AET recording form for this purpose. In this task, carefully follow the recording instructions provided below.

Definition of Academic Engaged Time

AET means that the student is appropriately engaged in working on assigned academic material that is geared to her/his ability and skill levels. While academically engaged, the student is (a) attending to the material and the task, (b) making appropriate motor responses (e.g., writing, computing), (c) asking for assistance (where appropriate) in an acceptable manner, (d) interacting with the teacher or classmates about academic matters or, (e) listening to teacher instructions and directions. **Non-examples** of AET would include such things as not attending to the assigned task, breaking classroom rules (out of seat, talking out, disturbing others, etc.) or daydreaming.

The following quiz will help you discriminate examples of AET from non-examples. If you do not pass the quiz with 100% accuracy, study the definition of AET again and retake the quiz.

AET Quiz

Instructions: For each behavioral description below, decide if the behavior is an example or non-example of Academic Engaged Time (AET).

E = Examples

N = Non-Examples

1. _____ Student is looking from his math book to his math paper.
2. _____ Student is waiting for teacher assistance, has her hand raised, and is looking at the teacher, who is helping another student.
3. _____ Student is whispering to student next to him and exchanging match-box cars.
4. _____ Student is looking at the teacher as she explains the assignment.
5. _____ Student looks up from paper, silently counts on fingers, and looks back at paper to write an answer.
6. _____ Student next to the target student asks a question about the assignment. Target student points out something in the other student's book and returns to his own work.
7. _____ Student looks around to locate teacher, sees that he is busy, raises hand, and continues to work.
8. _____ Student looks up from paper, chews on pencil, and looks out the window.
9. _____ Student sharpens her pencil.
10. _____ Student looks from assignment or the board to her paper, writes, and looks back to the board.
11. _____ Student lays a completed paper on the teacher's desk and gets another.
12. _____ Student waits for the teacher to finish helping another student, hands the teacher her paper, and waits while the teacher looks for another paper.
13. _____ Student plays with and looks at two paper clips as the teacher explains the assignment.
14. _____ Student is smiling, looking at book and paper on his desk while deliberately kicking the chair of the student in front of him.
15. _____ Student is absent-mindedly swinging his legs while looking at his book and paper.

Answers

E = Examples

N = Non-Examples

1. E Student is looking from his math book to his math paper.
2. E Student is waiting for teacher assistance, has her hand raised, and is looking at the teacher, who is helping another student.
3. N Student is whispering to student next to him and exchanging match-box cars.
4. E Student is looking at the teacher as she explains the assignment.
5. E Student looks up from paper, silently counts on fingers, and looks back at paper to write an answer.
6. E Student next to the target student asks a question about the assignment. Target student points out something in the other student's book and returns to his own work.
7. E Student looks around to locate teacher, sees that he is busy, raises hand, and continues to work.
8. N Student looks up from paper, chews on pencil, and looks out the window.
9. N Student sharpens her pencil.
10. E Student looks from assignment or the board to her paper, writes, and looks back to the board.
11. E Student lays a completed paper on the teacher's desk and gets another.
12. E Student waits for the teacher to finish helping another student, hands the teacher her paper, and waits while the teacher looks for another paper.
13. N Student plays with and looks at two paper clips as the teacher explains the assignment.
14. N Student is smiling, looking at book and paper on his desk while deliberately kicking the chair of the student in front of him.
15. N Student is absent-mindedly swinging his legs while looking at his book and paper.

Recording Instructions

- Step One:** Select a seatwork period in which at least 15-20 minutes of class time has been allocated for independent work on an assigned academic task.
- Step Two:** Note the hour and minute that you begin observing and record it on the AET form.
- Step Three:** Record the amount of time the pupil displays behavior consistent with the definition. Let the stopwatch run when the pupil is academically engaged and turn it off when he/she is not. Restart it when the pupil is again academically engaged. Repeat this procedure throughout the recording interval.
- Step Four:** Record the time you stop on the AET form.
- Step Five:** Compute percent AET by dividing the time on the stopwatch by the total time observed (e.g., 15 minutes) and multiplying by 100. Convert time observed and time on stopwatch to seconds (15 minutes = 900 seconds).
Note: The two classroom observations of a single student should not be scheduled in the same week. However, if it is necessary to do so, schedule the observations as far apart as possible (e.g., Monday and Friday).
- Step Six:** Record the data from the two classroom observations on the AET recording form.
- Step Seven:** Average the two AET observation sessions to obtain an overall AET score. You can do this by averaging the two AET times or by adding the stopwatch times together for the two sessions and dividing by the total time of the two observation sessions.

Quiz

Complete the Session 1 AET Recording Form on the following page using the information in the first paragraph below. Check your calculations and correct if necessary. If your calculations are not 100% accurate, reread the recording instructions. Then, read the second paragraph and use this information to calculate Session 2. As a final computation, work out the average percent AET for Sessions 1 and 2. Compare your completed AET recording form with the Key on page 72.

Observation Session #1

On Tuesday, October 28, you go to Lincoln School to observe Clarence Bunson in Mrs. Zenner's second grade class. You begin your observation of math class at 10:43. The students work on math papers until 11:03, when they get ready to go to recess. The time on your stopwatch is 17 minutes and 42 seconds.

Observation Session #2

On Monday, November 3, you return to the same classroom for Clarence's second session. When you begin observing at 10:41, Clarence is doing math time tests, following which he works on math papers until 11:00. The elapsed time on your watch is 16 minutes and 12 seconds.

Key for AET Quiz

Systematic Screening for Behavior Disorders ACADEMIC ENGAGED TIME RECORDING FORM*

Student Name Clarence B. School Lincoln Grade 2
Teacher Name Lenner Observer _____
Reliability Observer _____

SESSION #1

Date 10-28-86
Time Start 10:43 Time Stop 11:03 Length of Session 20 min.
1062 sec.
17 min. 42 sec. ÷ 1200 sec. = .885 x 100 = 88.5
Time on Stopwatch Length of Session AET % AET

Convert time to total # of seconds (i.e., minute equals 60 seconds) before computing.
Divide time on stopwatch by total time observed.

Classroom Activity During Observation

Math seatwork

SESSION #2

Date 11-3-86
Time Start 10:41 Time Stop 11:00 Length of Session 19 min.
972 sec.
16 min. 12 sec. ÷ 1140 sec. = .853 x 100 = 85.3
Time on Stopwatch Length of Session AET % AET

Convert time to total # of seconds (i.e., minute equals 60 seconds) before computing.
Divide time on stopwatch by total time observed.

Classroom Activity During Observation

Math seatwork

Total Time Engaged for Sessions 1 & 2 = 2034 seconds
Total Time Observed for Sessions 1 & 2 = 2340 seconds
Average Percent AET for Sessions 1 & 2 = Total AET _____ x 100 = 86.9%
Percent AET

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Procedures for Observing in an Academic Situation

The following is a list of guidelines to be followed by the observer to assure smooth data gathering through proper equipment functioning and by establishing and maintaining good relations with school personnel.

Before an Observation

1. Contact the student's teacher by calling the school just before or right after the school day (e.g., before 8:30 a.m., after 2:30 p.m.). Usually, you will have to leave your name and number and let the teacher call you back at his or her convenience. Explain who you are and that you need to observe (subject name) twice for 15 to 20 minutes during an academic period when the student is likely to be doing seatwork. Ask the teacher when you might come and observe. Work within the teacher's schedule and she/he will be more helpful. If your first contact with the teacher is positive, future interactions will be easier. If the teacher has questions you do not feel comfortable answering, have her call the coordinator in your district for more explanation.
2. Before leaving for the school, be sure your stopwatch is working. Always use a watch that can be stopped and started without an audible click or beep. In addition to your stopwatch, you should have two sharp pencils and an adequate supply of AET coding sheets.
3. Be sure you know where the school is located. The use of a map or a check with other people who have been to the school should reduce the chance of missing an observation because of getting lost. Have the name, telephone number, and the address of school on a sheet of paper that is to be taken to the observation. If lost, telephone the school and a member of the school staff can direct you to the school.
4. Plan on arriving on the school grounds 10 minutes prior to the time that an observation is to begin. This will allow enough time for preparation so that the observation can proceed on schedule.
5. Follow the rules that apply to visitors to a school.
 - a. Always check in with the school secretary at the office. Identify yourself and indicate you will be observing in (teacher's name) room from (time) to (time).
 - b. Some schools have dress codes, so it is important that the observer dress in a manner acceptable to a particular school. The schools have agreed to participate in the use of the SSBD screening procedures and in order to maintain satisfactory relationships it is necessary that observers follow the same rules that apply to school staff.
 - c. After reporting to the office go directly to the classroom, arriving approximately 5 minutes before the scheduled observation. If it is your first visit, quietly introduce

yourself to the teacher and provide the name(s) of the student(s) to be observed so they can be pointed out to you.

- d. When you enter the classroom, a minimal amount of conversation should occur with the teacher and students. This rule is to be applied at all times. This does not mean that you are unsocial; the usual social amenities are exhibited (e.g., "Good morning") but no extended conversations. As soon as an observer becomes an active part of the environment (i.e., children interacting with the observer) the observer's neutrality is no longer maintained. Children accommodate quickly to a **neutral** observer and continue their activities as though the observer were not present.

During an Observation

1. As soon as you begin coding, there should be as few interruptions as possible. If time is spent in preparatory activities, numbering pages, or sharpening pencils, data are irretrievably lost and the analysis will be less complete.
2. When two observers are coding in a classroom there should be as little interchange as possible. Talking among observers should only occur in unusual circumstances (e.g., if an observer has broken both pencil points). Talk about the teacher, the children, the code, or the functioning of the stopwatch should **never** occur. Minimizing the distraction caused by observer interaction will lessen the possibility of obtaining biased data. Being prepared for contingencies that can occur during an observation will free the observer from the necessity for interaction during the observation.
3. While observing, refrain from engaging in distracting behaviors, such as chewing gum, tapping your feet, coughing, clicking a pen, etc.

Following an Observation

1. After the 15-minute observation, leave the classroom as quietly as possible, stop at the office before leaving the school, and inform the secretary that the observation is complete.
2. When you have completed both classroom observations for a student, calculate the average AET. When playground PSB observations for the same student have been completed and the PSB Summary Form completed, clip all data sheets together to assure that all observation data is gathered together for the target child.
3. Write down any coding questions you may have. If you have a question about how to code a specific behavior, the chances are other observers do, too. Discussing these questions will help make the AET coding uniform and reliable across observers.

Appendix A

Peer Social Behavior (PSB) Video Training Tape Scoring Key for Pre-Coded Vignettes

LEVEL ONE

Social Engagement "Ryan"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1	+				
2	+				
3	+				
4	+				
5	+				
6	+				
7	+				
8	+				
9		—			
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL ONE

Participation "Drew"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1		+			
2		+			
3		+			
4		+			
5		+			
6		+			
7		+			
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL ONE

Negative Behavior
Social Engagement
"Ryan"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1	—				
2	—				
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL ONE

Negative Behavior
Participation
"Drew"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1		—			
2		—			
3		—			
4		—			
5		—			
6		—			
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL ONE

Parallel Play
"Matt"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1			✓		
2			✓		
3			✓		
4			✓		
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL ONE

Alone
"Ryan"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1				✓	
2				✓	
3				✓	
4				✓	
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL ONE

No Codeable Response
"Elizabeth"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1					•
2					•
3					•
4					•
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL ONE

No Codeable Response to
Social Engagement
"Elizabeth"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1					•
2					•
3	+				
4	+				
5	+				
6	+				
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL TWO

Participation to
No Codeable Response
"Karyn"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1		+			
2		+			
3		+			
4		+			
5		+			
6		—			
7					•
8		+			
9		+			
10		+			
11		+			
12		+			
13		+			
14		+			
15		+			
16		+			
17		+			
18		—			
19		—			
20	—				

LEVEL TWO

Out of View
"Karyn"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1					✓
2					✓
3	+				
4	+				
5					✓
6	+				
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL TWO

Alone to Social Engagement
"Ryan"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1				✓	
2				✓	
3				✓	
4				✓	
5				✓	
6				✓	
7				✓	
8	+				
9	+				
10	+				
11	+				
12	+				
13	+				
14	+				
15	+				
16	+				
17					
18					
19					
20					

LEVEL TWO

Alone to Parallel Play
"Drew"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1			✓		
2			✓		
3			✓		
4			✓		
5			✓		
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

300

LEVEL TWO

Parallel Play to
Social Engagement
"Drew"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1			✓		
2			✓		
3	+				
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL TWO

Participation to
Social Engagement
"Julie"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1		+			
2	—				
3	+				
4	+				
5	+				
6	+				
7	+				
8	—				
9	+				
10	+				
11		+			
12		+			
13		—			
14		—			
15		+			
16	—				
17	+				
18	+				
19	+				
20	+				

LEVEL THREE

Participation (Not Alone)
"Drew"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1		+			
2		+			
3		+			
4		+			
5		+			
6		+			
7		+			
8		+			
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL THREE

Scene 1
"Julie"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1				✓	
2	+				
3	+				
4	+				
5	+				
6	+				
7	+				
8	+				
9	+				
10	+				
11	+				
12	+				
13	+				
14	+				
15	+				
16	+				
17	+				
18	+				
19	+				
20					

LEVEL THREE

Scene 2 "Ryan"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1			✓		
2			✓		
3			✓		
4			✓		
5	+				
6	+				
7	+				
8	+				
9	—				
10	—				
11	—				
12	—				
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL THREE

Scene 3 "Drew"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1		—			
2		—			
3	—				
4	+				
5	+				
6	+				
7		+			
8		+			
9		+			
10		+			
11		+			
12		+			
13		+			
14		+			
15					
16					
17					
18					
19					
20					

LEVEL THREE

Scene 4

"Matt"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1	+				
2	+				
3	+				
4	+				
5		+			
6		+			
7		+			
8		+			
9		+			
10		+			
11		+			
12		+			
13		+			
14		—			
15		+			
16		+			
17		+			
18		+			
19		+			
20		+			

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
21		+			
22		+			
23		+			
24		+			
25		+			
26		+			
27		+			
28		+			
29		+			
30		+			
31		—			
32		—			
33					
34					
35					
36					
37					
38					
39					
40					

LEVEL THREE

Scene 5 "Ryan"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1		+			
2		—			
3		—			
4		—			
5		—			
6		—			
7		—			
8		—			
9		—			
10		—			
11		—			
12					
13					
14					
15					
16					
17					
18					
19					
20					

LEVEL THREE

Scene 6 "Emily"

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1	+				
2	—				
3	—				
4	—				
5			✓		
6			✓		
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Appendix B

PSB Normative Tables

NOTE: The normative levels in these tables are based upon observations of students representing the highest-ranked externalizers; highest-ranked internalizers; and boy and girl pairs randomly selected from the pool of normal non-ranked students in SSBD screening Stage One.

The normative levels for only those students who pass through SSBD Gate Three would be substantially different than those reported in the following tables.

**PSB SOCIAL ENGAGEMENT SCORES FOR
ALL STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	72.61	25.40	1.34
Externalizers	215	67.11	26.12	1.78
Internalizers	210	66.70	26.38	1.82
TOTAL	786	69.52	25.99	0.93

**PSB SOCIAL ENGAGEMENT SCORES FOR
ALL STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	70.18	28.40	1.95
Externalizers	109	60.65	29.29	2.81
Internalizers	112	63.24	30.13	2.85
TOTAL	433	65.98	29.32	1.41

**PSB SOCIAL ENGAGEMENT SCORES FOR
ALL STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	71.71	26.55	1.11
Externalizers	324	64.94	27.36	1.52
Internalizers	322	65.49	27.74	1.55
TOTAL	1219	68.27	27.26	0.78

**PSB SOCIAL ENGAGEMENT SCORES FOR
MALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	179	66.25	27.56	2.06
Externalizers	181	66.39	25.93	1.93
Internalizers	98	64.63	27.96	2.82
TOTAL	458	65.96	26.96	1.26

**PSB SOCIAL ENGAGEMENT SCORES FOR
FEMALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	182	78.86	21.38	1.59
Externalizers	34	70.93	27.19	4.66
Internalizers	112	68.50	24.89	2.35
TOTAL	328	74.50	23.71	1.31

**PSB SOCIAL ENGAGEMENT SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	64.50	30.55	3.01
Externalizers	93	58.70	28.99	3.01
Internalizers	43	54.49	31.05	4.74
TOTAL	239	60.45	30.16	1.95

**PSB SOCIAL ENGAGEMENT SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	75.54	25.20	2.41
Externalizers	16	71.94	29.40	7.35
Internalizers	69	68.69	28.43	3.42
TOTAL	194	72.80	26.79	1.92

**PSB PARTICIPATION SCORES FOR
STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	11.86	23.16	1.22
Externalizers	215	12.34	23.41	1.60
Internalizers	210	10.18	22.59	1.56
TOTAL	786	11.54	23.06	0.82

**PSB PARTICIPATION SCORES FOR
STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	21.17	28.42	1.95
Externalizers	108	26.57	30.60	2.94
Internalizers	112	16.31	25.60	2.42
TOTAL	432	21.26	28.46	1.37

**PSB PARTICIPATION SCORES FOR
STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	15.31	25.61	1.07
Externalizers	323	17.10	26.84	1.49
Internalizers	322	12.31	23.82	1.33
TOTAL	1218	14.99	24.53	0.73

**PSB PARTICIPATION SCORES FOR
MALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	179	18.54	28.34	2.12
Externalizers	181	13.14	23.67	1.76
Internalizers	98	13.18	21.16	2.64
TOTAL	458	15.26	26.18	1.22

**PSB PARTICIPATION SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	28.33	31.34	3.09
Externalizers	92	28.84	31.73	3.31
Internalizers	43	23.01	31.35	4.78
TOTAL	238	27.56	31.43	22.04

**PSB PARTICIPATION SCORES FOR
FEMALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	182	5.29	13.76	1.02
Externalizers	34	8.09	21.77	3.73
Internalizers	112	7.55	18.66	1.76
TOTAL	328	6.35	16.50	0.91

**PSB PARTICIPATION SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	14.42	23.57	2.26
Externalizers	16	13.53	18.91	4.73
Internalizers	69	12.14	21.41	2.46
TOTAL	194	13.53	22.06	1.58

**PSB NO CODE SCORES FOR
STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	2.43	6.36	0.33
Externalizers	215	2.91	5.41	0.37
Internalizers	210	2.75	7.22	0.50
TOTAL	786	2.65	6.36	0.23

**PSB NO CODE SCORES FOR
STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	2.37	5.48	0.38
Externalizers	108	1.99	4.16	0.40
Internalizers	112	3.55	9.23	0.87
TOTAL	432	2.58	6.43	0.31

**PSB NO CODE SCORES FOR
STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	2.41	6.04	0.25
Externalizers	323	2.61	5.04	0.28
Internalizers	322	3.03	7.97	0.44
TOTAL	1218	2.62	6.38	0.18

**PSB NO CODE SCORES FOR
MALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	179	1.90	4.93	0.37
Externalizers	181	2.78	4.54	0.34
Internalizers	98	2.23	6.72	0.68
TOTAL	458	2.32	5.23	0.24

**PSB NO CODE SCORES FOR
FEMALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	182	2.96	7.48	0.55
Externalizers	34	3.62	8.75	1.50
Internalizers	112	2.21	7.62	0.72
TOTAL	328	3.11	7.64	0.42

**PSB NO CODE SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	1.67	3.80	0.37
Externalizers	92	1.99	4.30	0.45
Internalizers	43	3.05	6.70	1.02
TOTAL	238	2.04	4.64	0.30

**PSB NO CODE SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	3.03	6.64	0.64
Externalizers	16	2.00	3.38	0.85
Internalizers	69	3.86	10.54	1.27
TOTAL	194	3.24	8.06	0.58

**PSB ALONE SCORES FOR
STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	5.97	10.02	0.53
Externalizers	215	9.93	14.10	0.96
Internalizers	210	10.91	14.64	1.01
TOTAL	786	8.37	12.74	0.45

**PSB ALONE SCORES FOR
STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	2.40	6.00	0.41
Externalizers	108	5.75	12.66	1.22
Internalizers	112	8.49	16.31	1.54
TOTAL	432	4.81	11.51	0.55

**PSB ALONE SCORES FOR
STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	4.65	8.91	0.37
Externalizers	323	8.53	13.76	0.77
Internalizers	322	10.07	15.26	0.85
TOTAL	1218	7.11	12.43	0.36

**PSB ALONE SCORES FOR
MALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	179	6.41	9.58	0.72
Externalizers	181	10.55	14.59	1.08
Internalizers	98	11.91	16.93	1.71
TOTAL	458	9.22	13.63	0.64

**PSB ALONE SCORES FOR
FEMALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	182	5.53	10.44	0.77
Externalizers	34	6.62	10.76	1.85
Internalizers	112	10.03	12.30	1.16
TOTAL	328	7.18	11.30	0.62

**PSB ALONE SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	2.87	7.68	0.76
Externalizers	92	5.28	9.79	1.02
Internalizers	43	10.77	17.77	2.71
TOTAL	238	5.23	11.23	0.73

**PSB ALONE SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	1.95	3.77	0.36
Externalizers	16	8.44	23.49	5.87
Internalizers	69	7.07	15.30	1.84
TOTAL	194	4.30	11.86	0.85

**PSB ALONE SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	2.87	7.68	0.76
Externalizers	92	5.28	9.79	1.02
Internalizers	43	10.77	17.77	2.71
TOTAL	238	5.23	11.23	0.73

**PSB ALONE SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	1.95	3.77	0.36
Externalizers	16	8.44	23.49	5.87
Internalizers	69	7.07	15.30	1.84
TOTAL	194	4.30	11.86	0.85

**PSB PARALLEL PLAY SCORES FOR
STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	7.25	11.25	0.59
Externalizers	215	7.27	10.08	0.69
Internalizers	210	9.60	12.53	0.87
TOTAL	786	7.88	11.34	0.40

**PSB PARALLEL PLAY SCORES FOR
STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	3.32	9.91	0.68
Externalizers	108	4.88	8.83	0.85
Internalizers	112	8.11	16.25	1.54
TOTAL	432	4.83	11.81	0.57

**PSB PARALLEL PLAY SCORES FOR
STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	5.80	10.93	0.46
Externalizers	323	6.30	9.76	0.54
Internalizers	322	9.08	13.93	0.78
TOTAL	1218	6.80	11.16	0.33

**PSB PARALLEL PLAY SCORES FOR
MALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	179	7.23	11.13	0.83
Externalizers	181	6.86	9.01	0.76
Internalizers	98	8.64	10.42	1.05
TOTAL	458	7.38	10.18	0.48

**PSB PARALLEL PLAY SCORES FOR
FEMALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	182	7.28	11.40	0.85
Externalizers	34	9.44	14.49	2.49
Internalizers	112	10.45	14.12	1.33
TOTAL	328	8.59	12.77	0.71

**PSB PARALLEL PLAY SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	2.29	9.21	0.91
Externalizers	92	4.49	8.98	0.94
Internalizers	43	7.98	13.65	2.08
TOTAL	238	4.17	10.23	0.66

**PSB PARALLEL PLAY SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	4.28	10.48	1.00
Externalizers	16	3.75	8.13	2.03
Internalizers	69	8.20	17.78	2.14
TOTAL	194	5.63	13.47	0.97

**PSB ALONE + PARALLEL PLAY SCORES FOR
STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	13.22	16.76	0.88
Externalizers	215	17.19	18.68	1.27
Internalizers	210	20.51	20.82	1.44
TOTAL	786	16.26	18.67	0.67

**PSB ALONE + PARALLEL PLAY SCORES FOR
STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	5.71	11.98	0.82
Externalizers	108	10.13	16.98	1.63
Internalizers	112	16.60	23.75	2.24
TOTAL	432	9.62	17.53	0.84

**PSB ALONE + PARALLEL PLAY SCORES FOR
STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	10.44	15.58	0.65
Externalizers	323	14.83	18.41	1.02
Internalizers	322	19.15	21.93	1.22
TOTAL	1218	13.91	18.54	0.53

**PSB ALONE + PARALLEL PLAY SCORES FOR
MALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	179	13.64	16.50	1.23
Externalizers	181	17.41	18.51	1.38
Internalizers	98	20.55	21.32	2.15
TOTAL	458	16.61	18.56	0.87

**PSB ALONE + PARALLEL PLAY SCORES FOR
FEMALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	182	12.81	17.06	1.26
Externalizers	34	16.06	19.80	3.40
Internalizers	112	20.48	20.46	1.93
TOTAL	328	15.76	18.85	1.04

**PSB ALONE + PARALLEL PLAY SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	5.17	11.92	1.17
Externalizers	92	9.77	15.55	1.62
Internalizers	43	18.74	23.34	3.56
TOTAL	238	9.40	16.56	1.07

**PSB ALONE + PARALLEL PLAY SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	6.23	12.04	1.15
Externalizers	16	12.19	24.20	6.05
Internalizers	69	15.26	24.08	2.90
TOTAL	194	9.94	18.69	1.34

**PSB NEGATIVE INTERACTION SCORES FOR
STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	2.15	4.90	0.26
Externalizers	215	6.54	10.51	0.72
Internalizers	210	1.79	3.98	0.27

**PSB NEGATIVE INTERACTION SCORES FOR
STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	1.50	4.46	0.31
Externalizers	108	5.20	7.61	0.73
Internalizers	112	1.11	3.47	0.33
TOTAL	432	2.32	5.48	0.26

**PSB NEGATIVE INTERACTION SCORES FOR
STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	1.91	4.75	0.20
Externalizers	323	6.09	9.65	0.54
Internalizers	322	1.55	3.82	0.21
TOTAL	1218	2.92	6.53	0.19

**PSB NEGATIVE INTERACTION SCORES FOR
MALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	179	2.58	5.09	0.38
Externalizers	181	7.09	11.03	0.82
Internalizers	98	2.94	5.11	0.52
TOTAL	458	4.44	8.26	0.39

**PSB NEGATIVE INTERACTION SCORES FOR
FEMALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	182	1.72	4.69	0.35
Externalizers	34	3.60	6.45	1.11
Internalizers	112	0.79	2.21	0.21
TOTAL	328	1.60	4.32	0.24

**PSB NEGATIVE INTERACTION SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	2.01	5.02	0.49
Externalizers	92	4.77	6.46	0.67
Internalizers	43	1.12	2.24	0.37
TOTAL	238	2.92	5.49	0.36

**PSB NEGATIVE INTERACTION SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	1.02	3.82	0.37
Externalizers	16	7.69	12.33	0.38
Internalizers	69	1.10	4.00	0.48
TOTAL	194	1.60	5.38	0.39

**PSB POSITIVE INTERACTION SCORES FOR
STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	71.20	25.79	1.36
Externalizers	215	60.89	25.34	1.73
Internalizers	210	65.51	21.60	1.84
TOTAL	786	66.86	26.22	0.94

**PSB POSITIVE INTERACTION SCORES FOR
STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	69.78	28.23	1.94
Externalizers	108	55.55	28.55	2.75
Internalizers	112	62.72	29.56	2.79
TOTAL	432	64.39	29.19	1.40

**PSB POSITIVE INTERACTION SCORES FOR
STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	70.67	26.70	1.12
Externalizers	323	59.11	26.54	1.48
Internalizers	322	64.54	27.65	1.54
TOTAL	1218	65.98	27.32	0.78

**PSB POSITIVE INTERACTION SCORES FOR
MALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	179	64.54	27.75	2.07
Externalizers	181	59.47	25.09	1.86
Internalizers	98	62.30	28.15	2.84
TOTAL	458	62.05	26.85	1.25

**PSB POSITIVE INTERACTION SCORES FOR
FEMALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	182	77.76	21.87	1.62
Externalizers	34	68.49	25.74	4.41
Internalizers	112	68.32	24.96	2.36
TOTAL	328	73.57	23.77	1.31

**PSB POSITIVE INTERACTION SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	63.57	30.77	3.03
Externalizers	92	54.05	28.29	2.95
Internalizers	43	56.00	30.28	4.62
TOTAL	238	58.52	29.96	1.94

**PSB POSITIVE INTERACTION SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	65.64	24.30	2.33
Externalizers	16	64.16	29.46	7.36
Internalizers	69	66.91	28.52	3.43
TOTAL	194	71.59	26.58	1.91

**PSB TOTAL NEGATIVE SCORES FOR
STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	2.54	5.98	0.31
Externalizers	215	7.48	11.13	0.76
Internalizers	210	1.95	4.10	0.28
TOTAL	786	3.73	7.75	0.28

**PSB TOTAL NEGATIVE SCORES FOR
STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	1.77	4.84	0.33
Externalizers	108	6.34	8.64	0.83
Internalizers	112	1.32	3.89	0.37
TOTAL	432	2.80	6.18	0.30

**PSB TOTAL NEGATIVE SCORES FOR
STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	2.26	5.59	0.23
Externalizers	323	7.10	10.36	0.58
Internalizers	322	1.73	4.04	0.23
TOTAL	1218	3.40	7.24	0.21

**PSB TOTAL NEGATIVE SCORES FOR
MALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	179	3.29	6.82	0.51
Externalizers	181	8.05	11.55	0.86
Internalizers	98	3.02	5.24	0.53
TOTAL	458	5.11	9.06	0.42

**PSB TOTAL NEGATIVE SCORES FOR
FEMALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	182	1.80	4.93	0.37
Externalizers	34	4.44	7.99	1.37
Internalizers	112	1.00	2.42	0.23
TOTAL	328	1.80	4.77	0.26

**PSB TOTAL NEGATIVE SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	2.29	5.50	0.54
Externalizers	92	5.85	7.63	0.80
Internalizers	43	1.26	2.54	0.39
TOTAL	238	3.48	6.34	0.41

**PSB TOTAL NEGATIVE SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	1.28	4.09	0.39
Externalizers	16	9.16	13.05	3.26
Internalizers	69	1.36	4.56	0.55
TOTAL	194	1.96	5.88	0.42

**PSB TOTAL POSITIVE SCORES FOR
STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	361	81.94	19.10	1.01
Externalizers	215	71.88	21.65	1.48
Internalizers	210	74.91	22.50	1.55
TOTAL	786	77.31	21.20	0.76

**PSB TOTAL POSITIVE SCORES FOR
STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	212	89.21	15.96	1.10
Externalizers	108	80.39	20.99	2.02
Internalizers	112	78.50	25.37	2.40
TOTAL	432	84.22	20.60	1.99

**PSB TOTAL POSITIVE SCORES FOR
STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	573	84.63	18.32	0.77
Externalizers	323	74.73	21.77	1.21
Internalizers	322	76.16	23.56	1.31
TOTAL	1218	79.76	21.24	0.61

**PSB TOTAL POSITIVE SCORES FOR
MALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	179	81.14	19.39	1.45
Externalizers	181	71.38	21.05	1.56
Internalizers	98	74.00	23.11	2.33
TOTAL	458	75.76	21.31	1.00

**PSB TOTAL POSITIVE SCORES FOR
FEMALES IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	182	82.74	18.82	1.40
Externalizers	34	74.53	24.76	4.25
Internalizers	112	75.71	22.03	2.08
TOTAL	328	79.49	20.88	1.15

**PSB TOTAL POSITIVE SCORES FOR
MALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	103	90.07	15.84	1.56
Externalizers	92	81.05	20.30	2.12
Internalizers	43	76.74	25.14	3.83
TOTAL	238	84.18	20.18	1.31

**PSB TOTAL POSITIVE SCORES FOR
FEMALES IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	109	88.39	16.09	1.54
Externalizers	16	76.56	25.00	6.25
Internalizers	69	79.59	25.63	3.09
TOTAL	194	84.28	21.15	1.52

Appendix C

Accuracy Key for AET Observer Training Tape Vignettes

Accuracy Key for AET Observer Training Tape Vignettes

Directions: Compare your codings of each AET Vignette with those of the authors below. If you deviate by more than 5% in your estimates from those of the authors, you should review the AET definition and recode the vignette.

Each vignette is three minutes in length. Remember to convert the time on the stopwatch to seconds before dividing that figure by 180 seconds (i.e., 3 minutes = 60 seconds x 3 = 180 seconds).

Vignette #1 = 82%

Essix was on task 2 minutes 28 seconds

$$\begin{array}{rcl} 2 \text{ minutes } 28 \text{ seconds on task} & = & 148 \text{ seconds} \\ 3 \text{ minutes observed} & = & \underline{180 \text{ seconds}} \end{array}$$

Vignette #2 = 77%

Ben was on task 2 minutes 19 seconds

$$\begin{array}{rcl} 2 \text{ minutes } 19 \text{ seconds} & = & 139 \text{ seconds} \\ 3 \text{ minutes observed} & = & \underline{180 \text{ seconds}} \end{array}$$

Vignette #3 = 79%

Rene was on task 2 minutes 23 seconds

$$\begin{array}{rcl} 2 \text{ minutes } 23 \text{ seconds} & = & 143 \text{ seconds} \\ 3 \text{ minutes observed} & = & \underline{180 \text{ seconds}} \end{array}$$

Appendix D

AET Normative Tables

NOTE: The normative levels in these tables are based upon observations of students representing the highest-ranked externalizers; highest-ranked internalizers; and boy and girl pairs randomly selected from the pool of normal non-ranked students in SSBD screening Stage One.

The normative levels for only those students who pass through SSBD Gate Three would be substantially different than those reported in the following tables.

**ACADEMIC ENGAGED TIME SCORES
FOR STUDENTS IN GRADES 1-3**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	377	75.19	14.98	0.77
Externalizers	222	62.72	20.37	1.37
Internalizers	210	69.71	17.30	1.19
TOTAL	809	70.35	17.96	0.63

**ACADEMIC ENGAGED TIME SCORES
FOR STUDENTS IN GRADES 4-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>
Normal	223	81.43	12.95	0.87
Externalizers	115	62.14	19.70	1.84
Internalizers	117	72.18	19.35	1.79
TOTAL	455	74.18	18.40	0.86

**ACADEMIC ENGAGED TIME SCORES
FOR STUDENTS IN GRADES 1-6**

<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Normal	600	77.51	14.57
Externalizers	337	62.52	20.12
Internalizers	317	70.59	18.07
TOTAL	1264	71.86	18.06

**MEAN ACADEMIC ENGAGED TIME
FOR EXTERNALIZERS BY GRADE**

<i>All Externalizers</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Grades 1—6	337	62.52	20.12
Grades 1-3	222	62.72	20.37
Grades 4-6	115	62.14	19.70

377

**MEAN ACADEMIC ENGAGED TIME
FOR INTERNALIZERS BY GRADE**

<i>All Internalizers</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Grades 1-6	327	70.59	18.07
Grades 1-3	210	69.71	17.30
Grades 4-6	117	72.18	19.35

**MEAN ACADEMIC ENGAGED TIME
FOR CONTROLS BY GRADE**

<i>All Control Group</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Grades 1-6	600	77.51	14.57
Grades 1-3	377	75.19	14.98
Grades 4-6	223	81.43	12.95

**MEAN ACADEMIC ENGAGED TIME FOR
EXTERNALIZERS BY GRADE AND SEX**

<i>Male</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Grades 1-6	282	63.07	20.15
Grades 1-3	186	63.71	20.02
Grades 4-6	96	61.82	20.45

<i>Female</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Grades 1-6	55	59.71	19.89
Grades 1-3	36	57.58	21.69
Grades 4-6	19	63.74	15.71

**MEAN ACADEMIC ENGAGED TIME FOR
INTERNALIZERS BY GRADE AND SEX**

<i>Male</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Grades 1-6	143	68.82	18.36
Grades 1-3	97	68.04	17.44
Grades 4-6	46	70.46	20.26

<i>Female</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Grades 1-6	184	71.97	17.77
Grades 1-3	113	71.14	17.12
Grades 4-6	71	73.30	18.80

**MEAN ACADEMIC ENGAGED TIME FOR
NONIDENTIFIED BY GRADE AND SEX**

<i>Male</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Grades 1-6	299	76.23	15.09
Grades 1-3	188	74.38	15.70
Grades 4-6	111	79.36	13.48

<i>Female</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Grades 1-6	301	78.79	13.94
Grades 1-3	189	76.01	14.23
Grades 4-6	112	83.49	12.12

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SYSTEMATIC SCREENING FOR BEHAVIOR DISORDERS (SSBD)

Stage One: Rank Ordering Students on Externalizing and Internalizing Dimensions

School _____
Teacher _____
Class _____ Date _____

Purpose and Definitions

The purpose of Stage One is to evaluate all the students in your class on two dimensions that describe different types of behavior problems commonly observed in the school setting. These are **externalizing** and **internalizing** behavior problems. The dimensions of externalizing and internalizing account for nearly all of the behavior problems that underlay child adjustment problems in school and for which students are commonly referred to school psychological services.

Instructions

Step One: Carefully study the definitions and examples of externalizing and internalizing behavior problems presented on pages 3 and 4.

Step Two: Select an externalizing and an internalizing student group from the students in your class.

Get a copy of your class roster. For both externalizing and internalizing dimensions, review the characteristic behavior patterns of ALL students in your class and select the 10 students who most closely match each of the behavior profiles. Second, write the names of the 10 students on each of the forms (internalizing and externalizing) whose characteristic behavior patterns most closely match those behavioral dimensions in Column One. The order or magnitude of the behaviors is not important at this point. The goal is simply to identify the groups of internalizing and externalizing students.

- It is very important that you select the externalizing and internalizing groups according to how they actually behave (i.e., what they say and do) and not according to either the presumed intent of their behavior or what you infer they may be thinking and feeling. The definitions and examples of externalizing and internalizing dimensions should be the sole criteria used to form the externalizing and internalizing groups (n=10 each).
- Even if you feel you do not have 10 students in your class who match the behavioral descriptions, it is important that you go ahead and make that difficult judgment. It is essential that 10 students each be identified for the two dimensions in order to assure that all students are adequately screened for the two behavior patterns.
- Students in the Externalizing and Internalizing lists must be mutually exclusive. That is, a single student can appear on only one of the lists—**not both!** The authors recognize that occasionally a pupil will exhibit behavioral characteristics associated with both externalizing and internalizing behavior patterns. When this occurs, simply judge the student on the dimension (i.e., externalizing or internalizing) which seems to best characterize her/his overall behavior pattern. The accuracy of the screening is often adversely affected by having a student's name on both lists. If a teacher is concerned about a student's behavior problems, then that student is likely to be high ranked on either the externalizing or internalizing behavioral dimension and be eligible for further screening.
- Do not include the names of any students you have known less than one month on either the externalizing or internalizing groups.

Step Three: Rank order each of the students on each of your externalizing and internalizing lists.

Use Column Two to rank order the 10 students listed in Column One who manifest externalizing and internalizing behavior problems according to the degree or extent that their behavior matches the definition of each of the respective dimensions of behavior problems.

The student in your class assigned the rank of number one is the individual who, in your judgement, most exemplifies the externalizing or internalizing behavioral profile described below. The student who receives the rank of 10 is the one who least exemplifies this behavioral profile. Rank order students based on your observations and interactions with them during the past month or longer.

Rank Ordering on Internalizing Dimension

Internalizing refers to all behavior problems that are directed inwardly (i.e., away from the external social environment) and that represent problems with self. Internalizing behavior problems are often self-imposed and frequently involve behavioral deficits and patterns of social avoidance. **Non-examples** of internalizing behavior problems would be all forms of social behavior that demonstrate social involvement with peers and that facilitate normal or expected social development.

Examples include:

- having low or restricted activity levels
- not talking with other children,
- being shy, timid, and/or unassertive,
- avoiding or withdrawing from social situations,
- preferring to play or spend time alone,
- acting in a fearful manner,
- not participating in games and activities,
- being unresponsive to social initiations by others, and
- not standing up for one's self.

Non-Examples include:

- initiating social interactions with peers,
- having conversations,
- playing with others, having normal rates or levels of social contact with peers,
- displaying positive social behavior toward others,
- participating in games and activities,
- resolving peer conflicts in an appropriate manner, and
- joining in with others.

COLUMN ONE
List Internalizers

Most Exemplifying Internalizing Behavior	Student Name

COLUMN TWO
Rank Order Internalizers

Most ↑ Internalizing ↓ Least	Student Name
	1
	2
	3
	4
	5
	6
	7
	8
	9
	10

Instructions:

1. Review the definition of internalizing behavior and the list of all students in your class.
2. In Column One, enter the names of the 10 students whose characteristic behavior patterns most closely match the internalizing behavioral definition.
3. In Column Two, rank order the students listed in Column One according to the degree or extent to which each exhibits internalizing behavior. The student who exhibits internalizing behavior to the greatest degree is ranked first and so on until all 10 students are rank ordered.

Rank Ordering on Externalizing Dimension

Externalizing refers to all behavior problems that are directed outwardly, by the child, toward the external social environment. Externalizing behavior problems usually involve behavioral excesses, (i.e., too much behavior) and are considered inappropriate by teachers and other school personnel. **Non-examples** of externalizing behavior problems would include all forms of adaptive child behavior that are considered appropriate to the school setting.

Examples include:

- displaying aggression toward objects or persons,
- arguing,
- forcing the submission of others,
- defying the teacher,
- being out of seat,
- not complying with teacher instructions or directives,
- having tantrums,
- being hyperactive,
- disturbing others,
- stealing, and
- not following teacher or school imposed rules.

Non-Examples include:

- cooperating, sharing,
- working on assigned tasks,
- making assistance needs known in an appropriate manner,
- listening to the teacher.
- interacting in an appropriate manner with peers,
- following directions,
- attending to task, and
- complying with teacher requests.

COLUMN ONE
List Externalizers

Most Exemplifying Externalizing Behavior	Student Name

COLUMN TWO
Rank Order Externalizers

Most ↑ Externalizing ↓ Least	Student Name
	1
	2
	3
	4
	5
	6
	7
	8
	9
	10

Instructions:

1. Review the definition of externalizing behavior and then review a list of all students in your class.
2. In Column One, enter the names of the ten students who characteristic behavior patterns most closely match the externalizing behavioral definition.
3. In Column Two, rank order the students listed in Column One according to the degree or extent to which each exhibits externalizing behavior to the greatest degree is ranked first and so on until all 10 students are rank ordered.

SYSTEMATIC SCREENING FOR BEHAVIOR DISORDERS (SSBD)

**SSBD Stage Two Rating
for Externalizing Students**

Critical Events Index

Date _____ Teacher _____ School _____

Student _____ Sex _____ Grade _____

Check one: Stage One SSBD Rank: ☐ 1 ☐ 2 or ☐ 3

INSTRUCTIONS: Check **each** behavior from the list below that you are aware the student has exhibited during this school year.

- _____ 1. Steals.
- _____ 2. Sets fires.
- _____ 3. Vomits after eating.
- _____ 4. Has tantrums.
- _____ 5. Physically assaults an adult.
- _____ 6. Exhibits painful shyness.
- _____ 7. Exhibits large weight loss or gain over past three months. (Significant weight fluctuation would be in excess of 20% change in body weight.)
- _____ 8. Exhibits sad affect, depression and feelings of worthlessness to such an extent as to interfere with normal peer and classroom activities.
- _____ 9. Is physically aggressive with other students or adults (hits, bites, chokes, or throws things).
- _____ 10. Damages others' property (academic materials, damages personal possessions).
- _____ 11. Demonstrates obsessive-compulsive behaviors. (Student can't get his/her mind off certain thoughts or obsessions.)
- _____ 12. Reports having nightmares or significant sleep disturbances.
- _____ 13. Engages in inappropriate sexual behaviors (masturbation, exposes self).

- _____ 14. Is self-abusive (biting, cutting or bruising self, head banging).
- _____ 15. Attempts to **seriously** physically injure another using weapons or objects.
- _____ 16. Suddenly cries or displays highly inappropriate affect in normal situations.
- _____ 17. Complains of **severe** headaches or other somatic complaints such as stomach aches, nausea, dizziness, or vomiting.
- _____ 18. Talks of killing himself/herself. Reports having suicidal thoughts or being preoccupied with death.
- _____ 19. Exhibits thought disorders or gets lost in own thoughts.
- _____ 20. Ignores teacher warnings or reprimands.
- _____ 21. Makes lewd or obscene gestures.
- _____ 22. Shows evidence of physical abuse.
- _____ 23. Shows evidence of drug use.
- _____ 24. Reports being sexually abused.
- _____ 25. Uses obscene language or swears.
- _____ 26. Exhibits cruelty to animals.
- _____ 27. Is teased, neglected and/or avoided by peers.
- _____ 28. Has severely restricted activity levels.
- _____ 29. Is enuretic (inadequate bladder control or bed wetting).
- _____ 30. Is encopretic (inadequate bowel control).
- _____ 31. Sexually molests other children.
- _____ 32. Has auditory or visual hallucinations.
- _____ 33. Has severe lack of interest in activities which were previously of interest.

Please specify any serious behavior not appearing on this list.

- _____ 35. _____
- _____ 36. _____

_____ TOTAL CRITICAL EVENTS

SYSTEMATIC SCREENING FOR BEHAVIOR DISORDERS (SSBD)

Combined Frequency Index for Adaptive and Maladaptive Behavior

Instructions: The numbers 1 through 5 are a continuous scale and are used to indicate your estimate of the frequency with which each item occurs for a given student. Circle a number between 1 and 5 to represent the frequency of a given item. Complete the scale in relation to your observations of the student during the **past 30 days**.

ADAPTIVE STUDENT BEHAVIOR

Never Sometimes Frequently

- | | |
|-----------------------------------|---|
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (1) Follows established classroom rules. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (2) Is considerate of the feelings of others. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (3) Produces work of acceptable quality given her/his skill level. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (4) Gains peers' attention in an appropriate manner. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (5) Expresses anger appropriately, e.g., reacts to situation without being violent or destructive. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (6) Cooperates with peers in group activities or situations. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (7) Makes assistance needs known in an appropriate manner, e.g., asks to go to the bathroom, raises hand when finished with work, asks for help with work, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (8) Is socially perceptive, e.g., "reads" social situations accurately. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (9) Does seat-work assignments as directed. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (10) Compliments peers regarding their behavior or personal attributes, e.g., appearance, special skills, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (11) Complies with teacher requests and commands. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (12) Initiates positive social interactions with peers. |

Total Adaptive Behavior Score

MALADAPTIVE STUDENT BEHAVIOR

Never Sometimes Frequently

- | | |
|-----------------------------------|--|
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (1) Requires punishment (or threat of same) before s/he will terminate an inappropriate activity or behavior. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (2) Refuses to participate in games and activities with other children at recess. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (3) Behaves inappropriately in class when corrected, e.g., shouts back, defies the teacher, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (4) Responds inappropriately when other children try to interact socially with her/him. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (5) Child tests or challenges teacher-imposed limits, e.g., classroom rules. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (6) Uses coercive tactics to force the submission of peers; manipulates, threatens, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (7) Creates a disturbance during class activities, e.g., is excessively noisy, bothers other students, out of seat, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (8) Manipulates other children and/or situations to get his/her own way. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (9) Is overly affectionate with others (peers and adults), e.g., touching, hugging, kissing, hanging on, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (10) Is excessively demanding, e.g., requires or demands too much individual attention. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (11) Pouts or sulks. |

Total Maladaptive Behavior Score

SYSTEMATIC SCREENING FOR BEHAVIOR DISORDERS (SSBD)

**Stage Two Rating for
Internalizing Students**

Critical Events Index

Date _____ Teacher _____ School _____

Student _____ Sex _____ Grade _____

Check one: Stage One SSBD Rank: ☐ 1 ☐ 2 or ☐ 3

INSTRUCTIONS: Check **each** behavior from the list below that you are aware the student has exhibited during this school year.

- _____ 1. Steals.
- _____ 2. Sets fires.
- _____ 3. Vomits after eating.
- _____ 4. Has tantrums.
- _____ 5. Physically assaults an adult.
- _____ 6. Exhibits painful shyness.
- _____ 7. Exhibits large weight loss or gain over past three months. (Significant weight fluctuation would be in excess of 20% change in body weight.)
- _____ 8. Exhibits sad affect, depression and feelings of worthlessness to such an extent as to interfere with normal peer and classroom activities.
- _____ 9. Is physically aggressive with other students or adults (hits, bites, chokes, or throws things).
- _____ 10. Damages others' property (academic materials, damages personal possessions).
- _____ 11. Demonstrates obsessive-compulsive behaviors. (Student can't get his/her mind off certain thoughts or obsessions.)
- _____ 12. Reports having nightmares or significant sleep disturbances.
- _____ 13. Engages in inappropriate sexual behaviors (masturbation, exposes self).

- _____ 14. Is self-abusive (biting, cutting or bruising self, head banging).
- _____ 15. Attempts to **seriously** physically injure another using weapons or objects.
- _____ 16. Suddenly cries or displays highly inappropriate affect in normal situations.
- _____ 17. Complains of **severe** headaches or other somatic complaints such as stomach aches, nausea, dizziness, or vomiting.
- _____ 18. Talks of killing himself/herself. Reports having suicidal thoughts or being preoccupied with death.
- _____ 19. Exhibits thought disorders or gets lost in own thoughts.
- _____ 20. Ignores teacher warnings or reprimands.
- _____ 21. Makes lewd or obscene gestures.
- _____ 22. Shows evidence of physical abuse.
- _____ 23. Shows evidence of drug use.
- _____ 24. Reports being sexually abused.
- _____ 25. Uses obscene language or swears.
- _____ 26. Exhibits cruelty to animals.
- _____ 27. Is teased, neglected and/or avoided by peers.
- _____ 28. Has severely restricted activity levels.
- _____ 29. Is enuretic (inadequate bladder control or bed wetting).
- _____ 30. Is encopretic (inadequate bowel control).
- _____ 31. Sexually molests other children.
- _____ 32. Has auditory or visual hallucinations.
- _____ 33. Has severe lack of interest in activities which were previously of interest.

Please specify any serious behavior not appearing on this list.

_____ 35. _____

_____ 36. _____

_____ TOTAL CRITICAL EVENTS

SYSTEMATIC SCREENING FOR BEHAVIOR DISORDERS (SSBD)

Combined Frequency Index for Adaptive and Maladaptive Behavior

Instructions: The numbers 1 through 5 are a continuous scale and are used to indicate your estimate of the frequency with which each item occurs for a given student. Circle a number between 1 and 5 to represent the frequency of a given item. Complete the scale in relation to your observations of the student during the **past 30 days**.

ADAPTIVE STUDENT BEHAVIOR

Never Sometimes Frequently

- | | |
|-----------------------------------|---|
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (1) Follows established classroom rules. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (2) Is considerate of the feelings of others. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (3) Produces work of acceptable quality given her/his skill level. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (4) Gains peers' attention in an appropriate manner. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (5) Expresses anger appropriately, e.g., reacts to situation without being violent or destructive. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (6) Cooperates with peers in group activities or situations. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (7) Makes assistance needs known in an appropriate manner, e.g., asks to go to the bathroom, raises hand when finished with work, asks for help with work, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (8) Is socially perceptive, e.g., "reads" social situations accurately. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (9) Does seat-work assignments as directed. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (10) Compliments peers regarding their behavior or personal attributes, e.g., appearance, special skills, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (11) Complies with teacher requests and commands. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (12) Initiates positive social interactions with peers. |

Total Adaptive Behavior Score

MALADAPTIVE STUDENT BEHAVIOR

Never Sometimes Frequently

- | | |
|-----------------------------------|--|
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (1) Requires punishment (or threat of same) before s/he will terminate an inappropriate activity or behavior. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (2) Refuses to participate in games and activities with other children at recess. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (3) Behaves inappropriately in class when corrected, e.g., shouts back, defies the teacher, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (4) Responds inappropriately when other children try to interact socially with her/him. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (5) Child tests or challenges teacher-imposed limits, e.g., classroom rules. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (6) Uses coercive tactics to force the submission of peers; manipulates, threatens, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (7) Creates a disturbance during class activities, e.g., is excessively noisy, bothers other students, out of seat, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (8) Manipulates other children and/or situations to get his/her own way. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (9) Is overly affectionate with others (peers and adults), e.g., touching, hugging, kissing, hanging on, etc. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (10) Is excessively demanding, e.g., requires or demands too much individual attention. |
| 1 . . . 2 . . . 3 . . . 4 . . . 5 | (11) Pouts or sulks. |

Total Maladaptive Behavior Score

Systematic Screening for Behavior Disorders

ACADEMIC ENGAGED TIME (AET) RECORDING FORM*

Student Name _____ School _____ Grade _____
 Teacher Name _____ Observer _____
 Reliability Observer _____

SESSION #1

Date _____
 Time Start _____ Time Stop _____ Length of Session _____

$$\frac{\text{Time on Stopwatch}}{\text{Length of Session}} = \frac{\text{AET}}{\text{AET}} \times 100 = \frac{\% \text{ AET}}{\% \text{ AET}}$$

*Convert time to total # of seconds (i.e., minute equals 60 seconds) before computing.
 Divide time on stopwatch by total time observed.*

Classroom Activity During Observation

SESSION #2

Date _____
 Time Start _____ Time Stop _____ Length of Session _____

$$\frac{\text{Time on Stopwatch}}{\text{Length of Session}} = \frac{\text{AET}}{\text{AET}} \times 100 = \frac{\% \text{ AET}}{\% \text{ AET}}$$

*Convert time to total # of seconds (i.e., minute equals 60 seconds) before computing.
 Divide time on stopwatch by total time observed.*

Classroom Activity During Observation

Total Time Engaged for Sessions 1 & 2 = _____ seconds
Total Time Observed for Sessions 1 & 2 = _____ seconds
Average Percent AET for Sessions 1 & 2 = Total AET _____ x 100 = _____
Percent AET

Systematic Screening for Behavior Disorders PEER SOCIAL BEHAVIOR RECORDING FORM*

Student Name _____ Teacher Name _____

School _____ Grade _____ Observer _____

Reliability Observer _____ Date _____ Time Start _____

Time Stop _____ Length of Session _____

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
0-1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Interval Number	+ -	+ -	✓	✓	• ✓
	SE	P	PLP	A	N
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

Systematic Screening for Behavior Disorders

PEER SOCIAL BEHAVIOR

OBSERVATION SUMMARY SHEET*

Student Name _____

School _____ Grade _____

Dates Observed _____ and _____

Session #1

Session #2

	Number of Intervals*	Observation #1**	Number of Intervals*	Observation #2**	Average of 1 and 2
1. Social Engagement (SE)	_____	_____ %	_____	_____ %	_____ %
2. Participation (P)	_____	_____ %	_____	_____ %	_____ %
3. Parallel Play (PLP)	_____	_____ %	_____	_____ %	_____ %
4. Alone (A)	_____	_____ %	_____	_____ %	_____ %
5. No Codeable Response (N)	_____	_____ %	_____	_____ %	_____ %
6. Social Interaction (SI)	_____	_____ %	_____	_____ %	_____ %
7. Negative Interaction (NI)	_____	_____ %	_____	_____ %	_____ %
8. Positive Interaction (PI)	_____	_____ %	_____	_____ %	_____ %
9. Total Positive Behavior	_____	_____ %	_____	_____ %	_____ %
10. Total Negative Behavior	_____	_____ %	_____	_____ %	_____ %

* Enter the number of intervals recorded for each category.

** Enter the percentage of time spent for each category by dividing the total number of intervals that you observed during the observation session into the intervals recorded under different categories and multiplying by 100.